


Service Manual

Dolby NR-Equipped
Stereo Double Cassette Deck

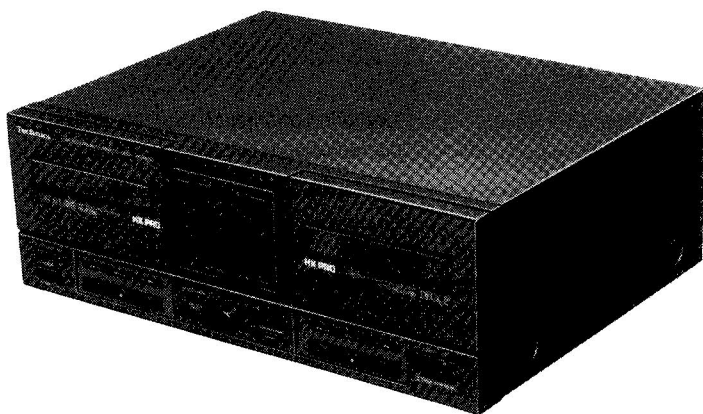
Cassette Deck
RS-X920

Simplified

 **DOLBY B-C NR HX PRO**

Colour

(K)... Black Type



Area

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)
(EB)	Great Britain.	
(EG)	Germany and Italy.	

- Please file and use this manual together with the service manual for Model No. RS-X902, Order No. AD9103047C2.
- This service manual indicates the main differences between; Original RS-X902.

■ LINE-UP OF COMPONENTS

System Name	Unit
SC-X920 (E)	ST-X902LA (E) : Tuner
	SU-X920D (E) : Amplifier
	RS-X920 (E) : Cassette Deck
	— : CD Player
	SL-J110R (E) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)
SC-X920 (EB)	ST-X902LA (EB) : Tuner
	SU-X920D (EB) : Amplifier
	RS-X920 (EB) : Cassette Deck
	SL-PJ38A (EB) : CD Player (Made in MBV)
	SL-J110R (EB) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)
SC-X920 (EG)	ST-X902LA (EG) : Tuner
	SU-X920D (EG) : Amplifier
	RS-X920 (EG) : Cassette Deck
	SL-PJ38A (EG) : CD Player (Made in MBV)
	SL-J110R (EG) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)

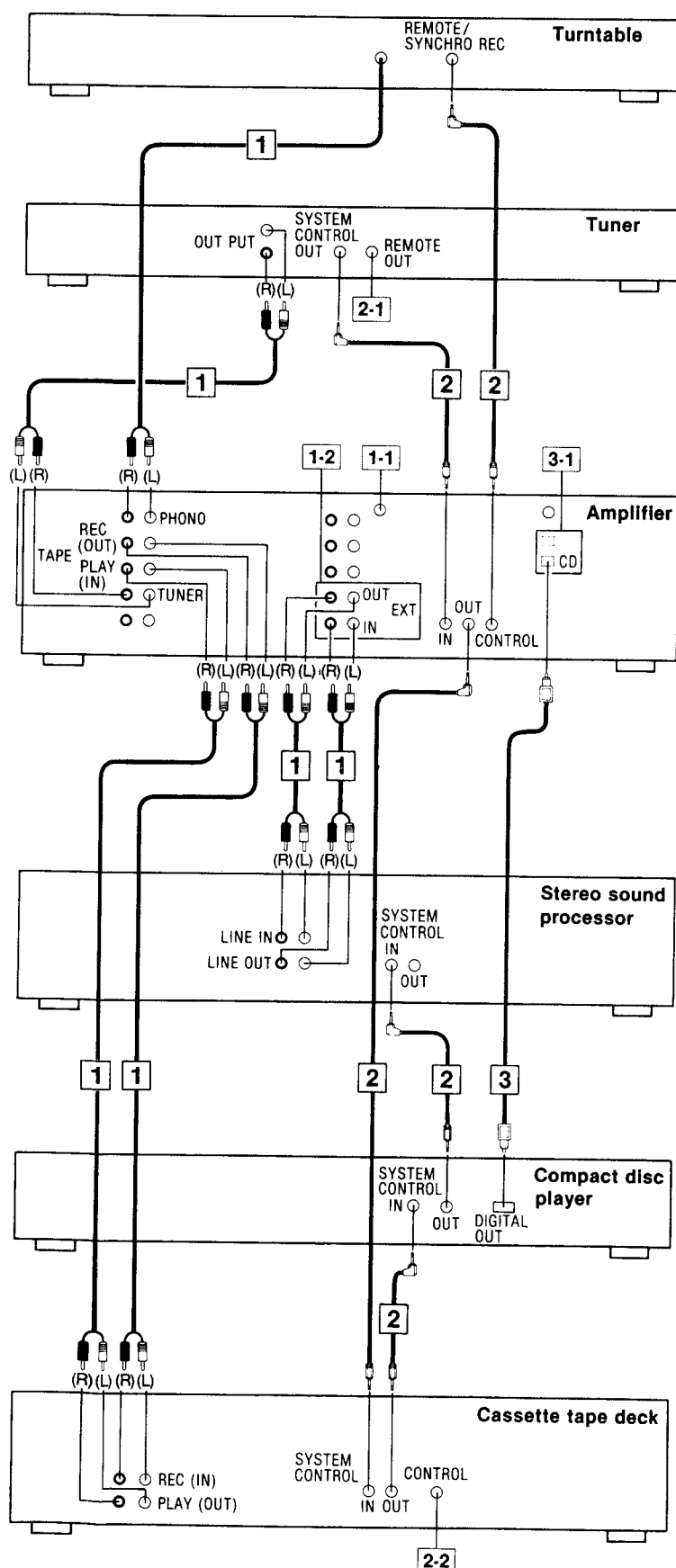
System Name	Unit
SC-X920 (EI)	ST-X902LA (EI) : Tuner (Made in PFS)
	SU-X920D (EG) : Amplifier
	RS-X920 (EG) : Cassette Deck
	SL-PJ38A (EG) : CD Player (Made in MBV)
	SL-J110R (EG) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)
SC-X920 (EF)	ST-X902LA (EF) : Tuner (Made in PFS)
	SU-X920D (E) : Amplifier
	RS-X920 (E) : Cassette Deck
	SL-PJ38A (E) : CD Player (Made in MBV)
	SL-J110R (E) : Turntable
	SB-CS95 (E) : Speaker (Made in PAES)

* HX Pro headroom extension originated by Bang Olufsen and manufactured under license from Dolby Laboratories Licensing Corporation.
“DOLBY”, the double-D symbol, and “HX PRO” are trademarks of Dolby Laboratories Licensing Corporation.

Technics

CONNECTIONS



Connections of each unit



Connection diagrams shown are for connections to a Technics hi-fi component system. Make connections in the numbered sequential order.

- 1 **Connect the stereo connection cables** (included with the turntable, tuner, stereo sound processor, and cassette tape deck).

Stereo connection cable

White (L) 
Red (R) 

1-1

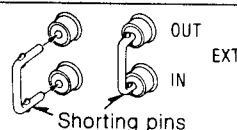
“GND” terminal of the amplifier

This terminal is for use with a turntable which has a ground wire.

1-2

“EXT” terminals of the amplifier

When these terminals are not in use, be sure to insert the “shorting” pins (included).



- 2 **Connect the L-type cable** (included with the turntable, tuner, stereo sound processor, compact disc player, and cassette tape deck).

2-1

“REMOTE OUT” terminal

This terminal is used to connect to the “REMOTE IN” terminal of the Technics multi-compact disc player (not included).

2-2

“CONTROL” terminal

Make a connection from this terminal to the “CONTROL” terminal for a cassette deck on a Technics multi compact disc player.

(For detailed information, refer to the operating instructions of the Technics multi compact disc player.)

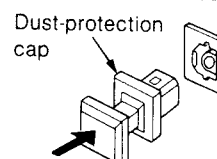
- 3 **Connect the optical-fiber cable** (included with the compact disc player).

3-1

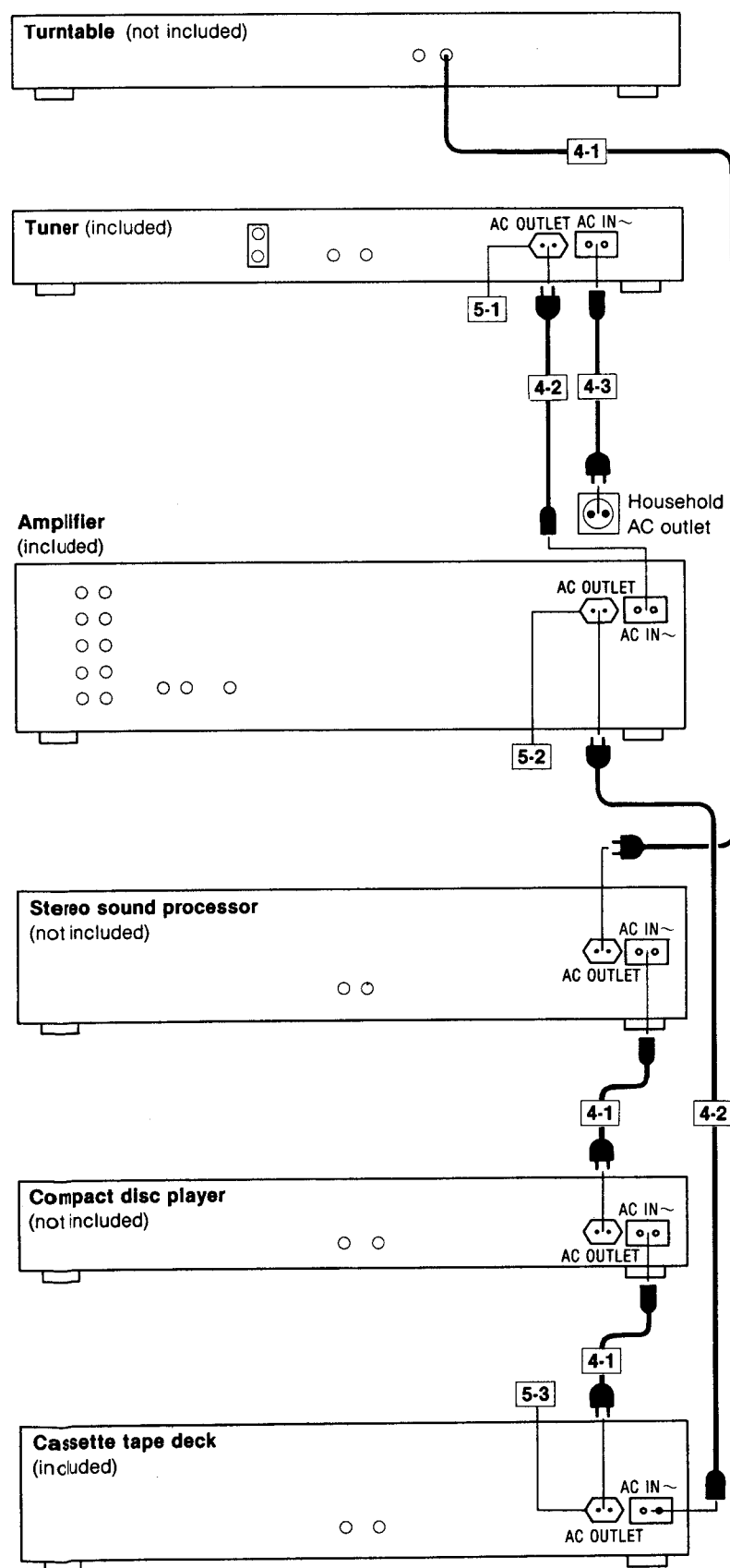
“DIGITAL IN” (CD, DAT) terminals of the amplifier

These terminals are protected by the dust-protection caps to avoid damage by the dust, etc. Remove the caps only when the “DIGITAL IN” terminals are to be used.

When these terminals are not being used, attach the caps as shown in the illustration below.



Connections of each unit (continued)



- 4 Connect the AC power supply cords.**
- 4-1 Connect the AC power supply cords** (not included).
- 4-2 Connect the AC power supply cords (short for continental Europe)** (included).
- 4-3 Connect the AC power supply cord (long for continental Europe)** (included).

Connect this cord only after all other cables have been connected.

For areas except continental Europe
If the power plug will not fit your socket, use the power plug adaptor (included).

**Notes:**

- Configuration of the AC outlets and AC power supply cords differ according to area.
- If the compact disc player is not used in combination with these components, connect the AC power supply cord of the stereo sound processor to the AC outlet of the cassette deck.

5 "AC OUTLET"**5-1 "SWITCHED" outlet**

Power is controlled by the power switch. Audio equipment rated up to 500 W can be connected here.

5-2 "UNSWITCHED" outlet:

Power is always available, regardless of power switch. Audio equipment rated up to 60 W can be connected here.

5-3 "UNSWITCHED" outlet:

Power is always available, regardless of power switch. Audio equipment rated up to 100 W can be connected here.

Note:

If other audio equipments are to be connected to these outlets, make sure that the total power consumption does not exceed the rating of each outlet.

After other units have been connected, tie up the cords in a bundle with a clip, etc. and place them behind the units.

CHANGE IN REPLACEMENT PARTS LIST (on pages 32~36, 39, 40, 45)

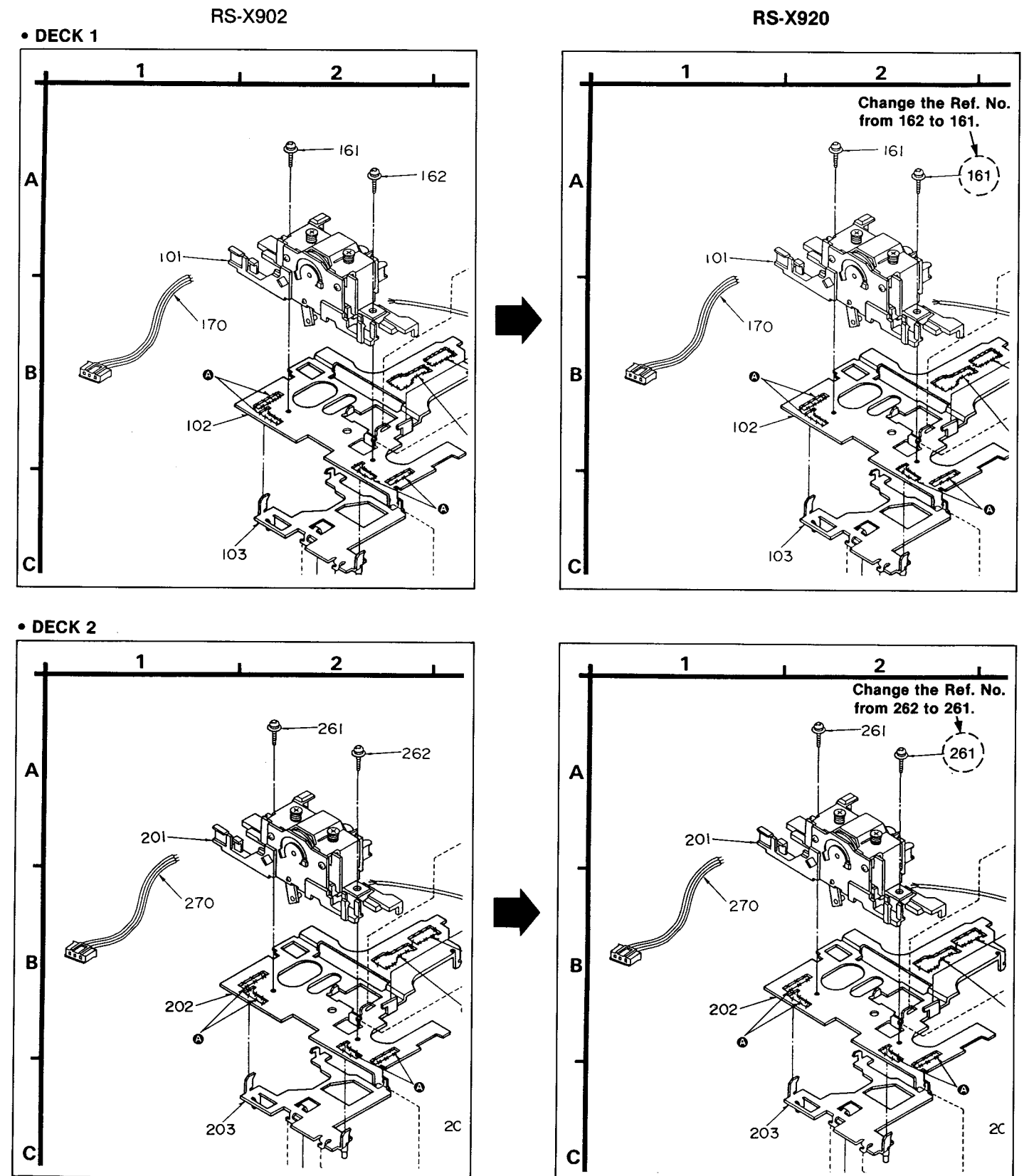
- Notes:**
- Mentioned in this parts list is only those different from Model No. RS-X902 (E). All other parts are the same as for RS-X902 (E).
 - Important safety notice:
Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-X902 (E)	RS-X920 (E, EB, EG)		
INTEGRATED CIRCUIT(S)				
IC971	DN6851ALB	LB9051A-WD	HALL (DECK 1)	
IC971A	DN6851ALB	LB9051A-WD	HALL (DECK 2)	
TRANSISTOR(S)				
Q5 – 8	KSA1175YGTA	2SA1309A-R	TRANSISTOR	
Q9 – 14	KSC2785YGTA	2SC3311A-Q	TRANSISTOR	
Q103, 104	KSC2785YGTA	2SC3311A-Q	TRANSISTOR	
Q107, 108	KSA1175YGTA	2SA1309A-R	TRANSISTOR	
Q109 – 112	KSC2785YGTA	2SC3311A-Q	TRANSISTOR	
Q303	KSB564ACYGTA	2SB621A-R	TRANSISTOR	
Q353	KSB564ACYGTA	2SB621A-R	TRANSISTOR	
Q551	KSA1175YGTA	2SA1309A-R	TRANSISTOR	
Q607	KSB564ACYGTA	2SB621A-R	TRANSISTOR	
Q816	KSC2785YGTA	2SC3311A-Q	TRANSISTOR	
Q905	KSC2785YGTA	2SC3311A-Q	TRANSISTOR	
Q911	KSA1175YGTA	2SA1309A-R	TRANSISTOR	
Q918	KSA1175YGTA	2SA1309A-R	TRANSISTOR	
Q929	KSC2785YGTA	2SC3311A-Q	TRANSISTOR	
Q932	KSC2785YGTA	2SC3311A-Q	TRANSISTOR	
CONNECTOR(S)				
CN4	RJS1A1704	RJS1A6604	CONNECTOR (4 P)	
CN6	RJS1A1704	RJS1A6604	CONNECTOR (4 P)	
CN600A	RJS1A1703	RJS1A6603	CONNECTOR (3 P)	
CN600B	RJS1A1703	RJS1A6603	CONNECTOR (3 P)	
JACK(S)				
JK702	RJS1A4902-B	RJS1A4802-B	AC OUTLET	(EB) △
		RJS1A4902-B	AC OUTLET	(E, EG) △
FLAT CABLE(S)				
W3	RWJ0210200QQ	RWJ5710200QQ	FLAT CABLE (10 P)	
W5	RWJ0210200QQ	RWJ5710200QQ	FLAT CABLE (10 P)	
W8	RWJ0210200KQ	RWJ5710200KQ	FLAT CABLE (10 P)	
RESISTORS				
R35, 36	ERDS2TJ474	ERDS2TJ394	C. RESISTOR, 1/4W, 390kΩ	
R141, 142	ERDS2TJ103	ERDS2TJ562	C. RESISTOR, 1/4W, 5.6kΩ	
R144, 145	ERDS2TJ103	ERDS2TJ562	C. RESISTOR, 1/4W, 5.6kΩ	
CAPACITORS				
C7 – 10	ECBT1H561KB5	ECBT1H471KB5	C. CAPACITOR, 50V, 470pF	
C13, 14	ECEA0JKA101B	ECEA1AU101	E. CAPACITOR, 10V, 100μF	
C15, 16	ECQB1H682JZ3	ECQB1H822JF3	C. CAPACITOR, 50V, 8200pF	
C21	ECEA0JKA101B	ECEA1AU101	E. CAPACITOR, 10V, 100μF	
C57, 58	ECEA1AKA470B	ECEA1CKA470B	E. CAPACITOR, 16V, 47μF	
C131, 132	ECQB1H822JZ	ECQB1H153JF3	C. CAPACITOR, 50V, 0.015μF	
C135, 136	ECQB1H822JZ	ECQB1H153JF3	C. CAPACITOR, 50V, 0.015μF	

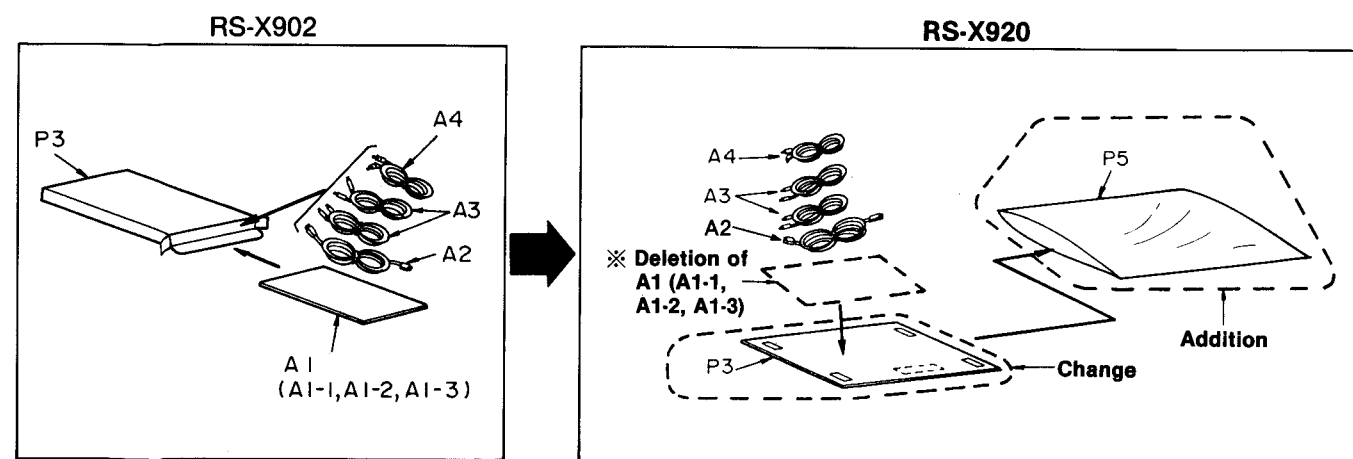
Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-X902 (E)	RS-X920 (E, EB, EG)		
CABINET AND CHASSIS				
3	RYF0136-K	RYF0136B-K	CASSETTE LID (DECK 1)	
4	RYF0137-K	RYF0137B-K	CASSETTE LID (DECK 2)	
6	RGR0102C-D	RGR0102B-D1	REAR PANEL	(EB)
		RGR0102C-F1	REAR PANEL	(EG)
		RGR0102C-H1	REAR PANEL	(E)
7	RJS1A4902-A	RJS1A4802-A	AC OUTLET COVER	(EB)
		RJS1A4902-A	AC OUTLET COVER	(E, EG)
13	RGG0066-K	RGG0066B-K	FRONT AL PANEL	
14	RFKGSX502E-K	RFKGSX520E-K	FRONT PANEL ASS'Y	
PACKING MATERIAL				
P1	RPG0845	RPG1209	PACKING CASE	
P3	SPSD152	RPQ0164	ACCESSORIES PAD	
P4	SPP756	XZB50X65A02Z	PROTECTION COVER (UNIT)	
P5	————	XZB24X34C04	PROTECTION BAG (ACCESSORIES)	Addition
ACCESSORIES				
A1	RQF1078	————	INSTRUCTION MANUAL UNIT	(E) Deletion
		————	INSTRUCTION MANUAL UNIT	(EB) Deletion
		————	INSTRUCTION MANUAL UNIT	(EG) Deletion
A1-1	RFKSSX902E-K	RFKSCX520DEK	INSTRUCTION MANUAL ASS'Y	(E)
		RQT1493-D	INSTRUCTION MANUAL	(EG)
		RQT1494-B	INSTRUCTION MANUAL	(EB)
A2	SJA187	RJA0018-1K	AC POWER SUPPLY CORD	(E, EG) △
		SJA188	AC POWER SUPPLY CORD	(EB) △
A3	SJP2249-3	SJP2276	STEREO CONNECTION CABLE	
MECHANISM PARTS LIST				
DECK 1				
161	XTW2+6L		SCREW	Change of Pcs.
162	XTW2+8L	————	SCREW	Deletion
DECK 2				
261	XTW2+6L		SCREW	Change of Pcs.
262	XTW2+8L	————	SCREW	Deletion

EXPLODED VIEWS (on pages 41, 43.)

Mechanical parts



PACKAGING (on page 31.)



※ Note:
This packaging not illustrated Ref. No. A1 (A1-1, A1-2, A1-3).
Refer to the packaging on page 42 of the service manual for Model
No. SU-X902, Order No. AD9103052C2.

Service Manual

Dolby NR-Equipped
Stereo Double Cassette Deck

Cassette Deck
RS-X902



Color

(K)...Black Type

Area

Country Code	Area	Color
(E)	Continental Europe.	(K)
(EB)	Great Britain.	
(EG)	F.R. Germany and Italy.	

* HX Pro headroom extension originated by Bang Olufsen and manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY", the double-D symbol, and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

MECHANISM SERIES (AR300)

SPECIFICATIONS

■ CASSETTE DECK SECTION

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Heads	
(tape deck 1) Rec/play	Permalloy head
Erasing	Double-gap ferrite head
(tape deck 2) Rec/play	Permalloy head
Erasing	Double-gap ferrite head
Motors	
(tape deck 1) Capstan	DC servo motor
(tape deck 2) Capstan	DC servo motor
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase
Tape speeds	4.8 cm/sec. (1 $\frac{7}{8}$ ips)
Frequency response	
NORMAL	30 Hz~16 kHz
CrO ₂	40 Hz~15 kHz (DIN)
METAL	30 Hz~17 kHz
	40 Hz~16 kHz (DIN)
	30 Hz~18 kHz
	40 Hz~17 kHz (DIN)
S/N (signal level=max recording level, CrO ₂ type tape)	
Dolby C NR on	74 dB (CCIR)
Dolby B NR on	66 dB (CCIR)
Dolby NR off	56 dB (A weighted)

Wow and flutter 0.07% (WRMS)
±0.2% (DIN)

Fast forward and rewind times
Approx. 110 seconds with C-60 cassette tape

Input sensitivity and impedance
LINE IN 60 mV/47 kΩ

Output voltage and impedance
LINE OUT 400 mV/800Ω

■ GENERAL

Power consumption 20 W
Power supply AC 50 Hz/60 Hz, 230~240 V
Dimensions (W×H×D) 360×129×297 mm
(14 $\frac{3}{16}$ "×5 $\frac{3}{32}$ "×11 $\frac{11}{16}$ ")
Weight 4.6 kg (10.1 lb.)

Note:

Specifications are subject to change without notice.
Weight and dimensions are approximate.

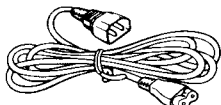
Technics

CONTENTS

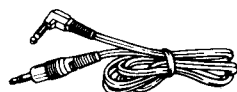
	Page
ACCESSORIES	2
CONNECTIONS	2
LOCATION OF CONTROLS	3, 4
DISASSEMBLY INSTRUCTIONS	5~8
MEASUREMENTS AND ADJUSTMENTS	9~11
INTERNAL CONNECTION OF FL	12
PRINTED CIRCUIT BOARDS	13~17
SCHEMATIC DIAGRAM	18~25
BLOCK DIAGRAM	26, 27
WIRING CONNECTION DIAGRAM	28

TERMINAL FUNCTION OF IC'S	29, 30
TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES	31
PACKING	31
REPLACEMENT PARTS LIST	32~34
RESISTORS & CAPACITORS	34~36
EXPLODED VIEWS (Cabinet parts)	37, 38
REPLACEMENT PARTS LIST	39, 40
EXPLODED VIEWS (Mechanical parts)	41~44
REPLACEMENT PARTS LIST	45

ACCESSORIES



AC power supply cord
(SJA187) (E, EG) 1 pc.
(SJA188) (EB)



L-type cable
(SJP2257T) 1 pc.

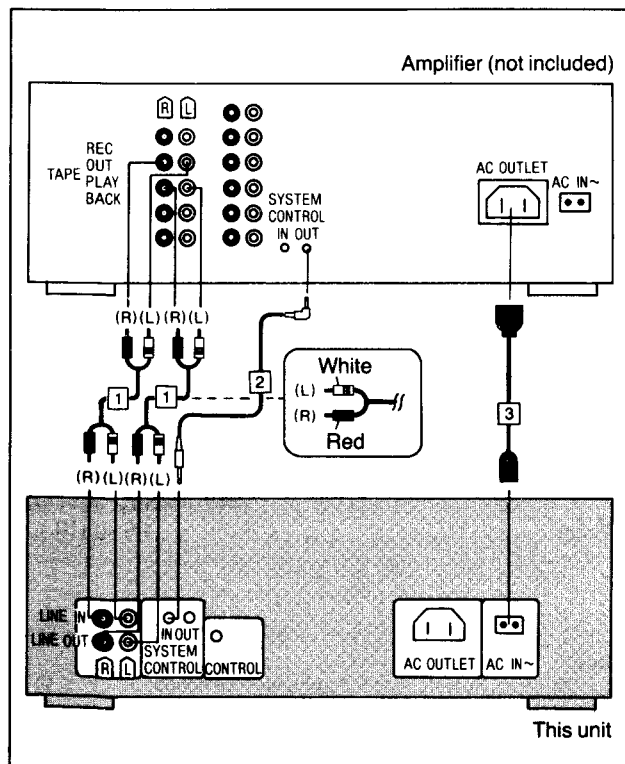


Stereo connection cables
(SJP2249-3) 2 pcs.

CONNECTIONS

Make connections in the numbered sequence by using the included cables.

- 1 Connect the stereo connection cables.
- 2 Connect the L-type cable.
- 3 Connect the AC power supply cord to the "AC OUTLET" of the amplifier or the household AC outlet.



The illustration at the left shows an example of connections made when this unit is combined with a Technics hi-fi component system, and shows only the connections to be made to and from this unit in that combination.

Refer to the illustration together with the instructions provided below.

"SYSTEM CONTROL IN" terminal

Make a connection from this terminal to the "SYSTEM CONTROL OUT" terminal for a cassette deck on a Technics amplifier. (For detailed information, refer to the operating instructions of the Technics amplifier.)

"SYSTEM CONTROL OUT" terminal

Make a connection from this terminal to the "SYSTEM CONTROL IN" terminal of a Technics stereo sound processor or to the "SYSTEM CONTROL IN" terminal of a Technics compact disc player.

(For detailed information, refer to the operating instructions of the Technics stereo sound processor or the Technics compact disc player.)

"CONTROL" terminal

Make a connection from this terminal to the "CONTROL" terminal for a cassette deck on a Technics multi compact disc player. (For detailed information, refer to the operating instructions of the Technics multi compact disc player.)

AC power supply cord (3)

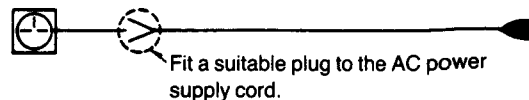
Notes:

- The configuration of the AC outlet and AC power supply cord differs according to area.
- If this unit is not to be connected with the amplifier, the cord is to be connected to the household AC outlet.

For United Kingdom

Cut off and dispose of the plug and replace with a suitable plug. (Refer to "For United Kingdom" above.)

Household AC outlet

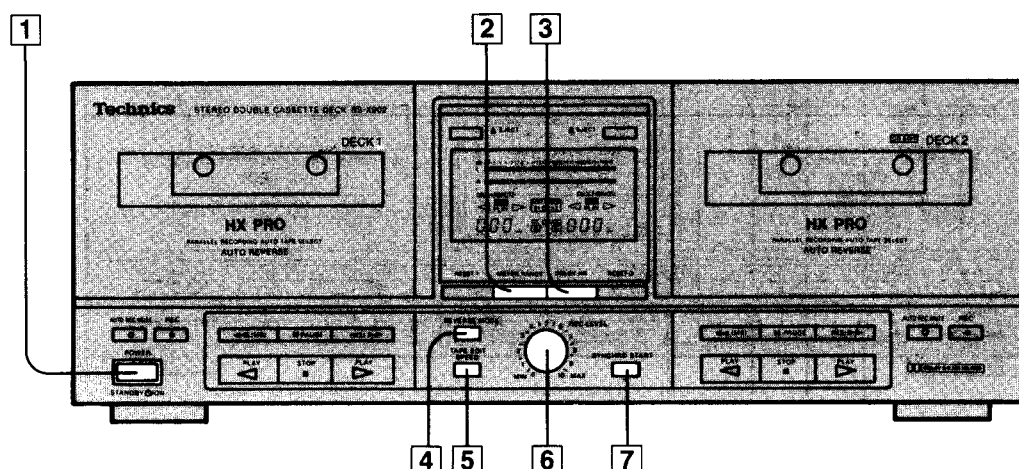


"AC OUTLET"

"UNSWITCHED" outlet

Power is always available, regardless of power switch. Audio equipment rated up to 100 W can be connected.

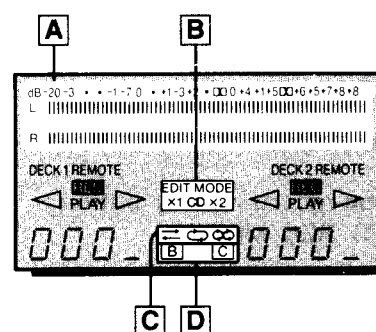
LOCATION OF CONTROLS



Controls common to both tape decks

- 1 Power "STANDBY ⏻ /ON" switch (POWER, STANDBY ⏻ /ON)**
This switch switches ON and OFF the secondary circuit power only. The unit is in the "standby" condition when this switch is set to the STANDBY ⏻ position. Regardless of the switch setting, the primary circuit is always "live" as long as the power cord is connected to an electrical outlet.
- 2 Meter-range selector (METER RANGE)**
This selector can be used to select the meter-range display of the input level meter.
- 3 Dolby noise-reduction selector (DOLBY NR)**
This selector can be used to reduce the hiss noise that is characteristic of tape. This unit is provided with both the B-type and C-type noise-reduction systems.
- 4 Reverse-mode selector (REVERSE MODE)**
This selector can be used for selection of the reverse mode (for either playback or recording).
- 5 Tape-to-tape recording tape-speed selector (TAPE EDIT SPEED)**
This selector can be used to select the recording speed when a tape-to-tape recording is made.
- 6 Recording-level control (REC LEVEL)**
This control can be used to regulate the recording level of both tape decks.
- 7 Synchro-start button (SYNCHRO START)**
This button can be used to start a tape-to-tape recording, simultaneously starting tape deck 1 (the playback deck) and tape deck 2 (the recording deck).

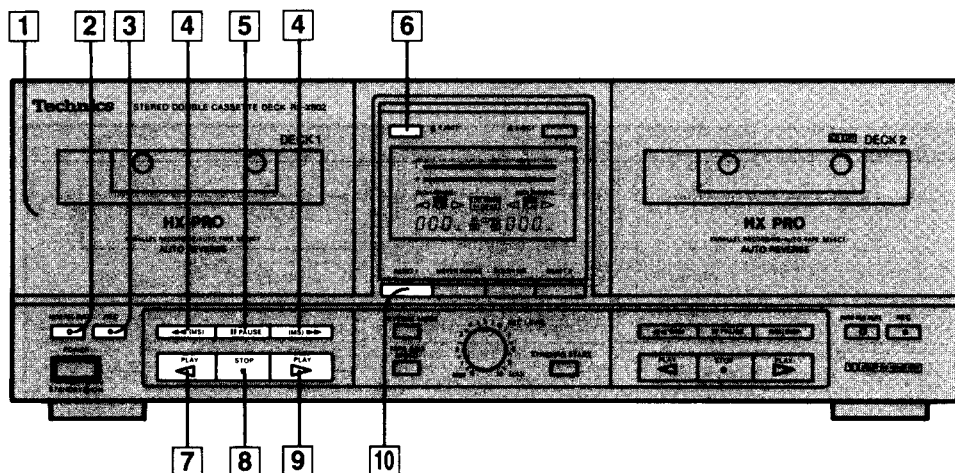
Indicators common to both tape decks



- A Input level meter**
During playback, this meter indicates the level of the recorded sound source.
During recording, it indicates the level being recorded, adjusted by the recording-level control.
- B Edit-recording indicators (EDIT MODE, CD, $\times 1$, $\times 2$)**
The words "EDIT MODE" and " $\times 1$ " (or " $\times 2$ ") indicator will illuminate when a tape-to-tape recording is made.
The words "EDIT MODE" and "CD" indicator will illuminate when a CD edit-recording is made.
- C Reverse-mode indicators (B, C, ∞)**
One of these indicators illuminates to show which of the reverse modes was selected by the reverse-mode selector.
- D Dolby noise-reduction indicators (B, C)**
One of these indicators illuminates to show the type of Dolby noise-reduction system selected by pressing the Dolby noise-reduction selector.

Tape deck 1

Tape deck 2



Controls applicable to tape decks 1 and 2

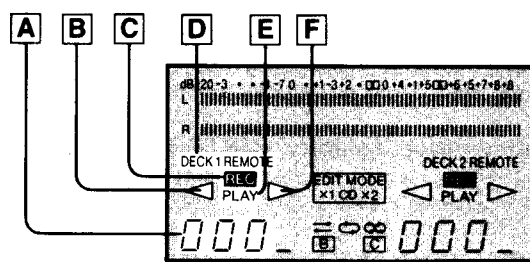
Both tape deck 1 and tape deck 2 have the same controls, indicators, etc., and have the same functions, so the following explanation, although for tape deck 1, is equally applicable to tape deck 2.

- 1 Cassette holder**
- 2 Automatic-record-muting button (○ AUTO REC MUTE)**
This button can be used to make a silent interval on the tape being recorded on the tape deck.
- 3 Record button (● REC)**
This button can be used to change the tape deck to the recording stand-by mode.
- 4 Fast-forward/rewind/search buttons [◀◀ (MS), (MS) ▶▶]**
These buttons can be used to fast-forward or rewind the tape, or to easily search for a tune's beginning quickly.
- 5 Pause button (|| PAUSE)**
This button can be used to temporarily stop the tape playback or recording of the tape deck.
- 6 Eject button (▲ EJECT)**
This button can be used to open the cassette holder.
- 7 Reverse-side playback button (◁ PLAY)**
This button can be used to start the playback or recording of side "B" of the cassette.
(The tape will then begin moving in the right-to-left direction.)
- 8 Stop button (■ STOP)**
This button can be used to stop tape movement.
- 9 Forward-side playback button (▷ PLAY)**
This button can be used to start the playback or recording of side "A" of the cassette.
(The tape will then begin moving in the left-to-right direction.)

10 Tape counter reset button (RESET 1, RESET 2)

This button can be used to reset the tape counter indication to "000".

Indicators applicable to tape decks 1 and 2

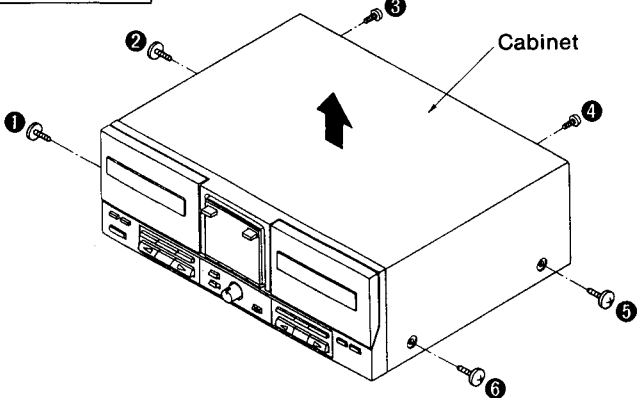
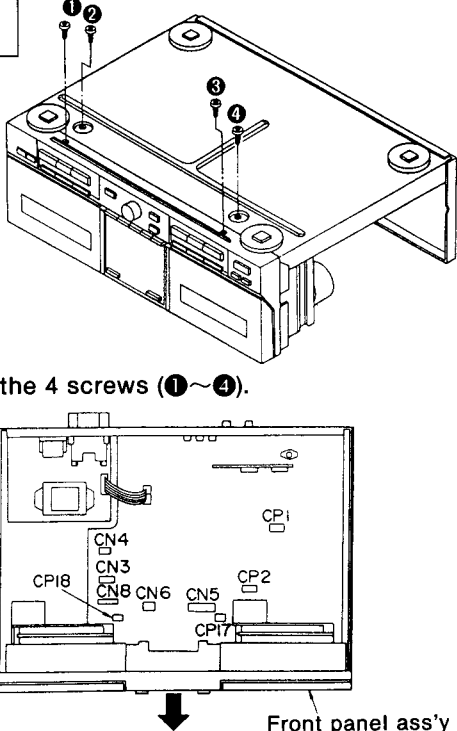

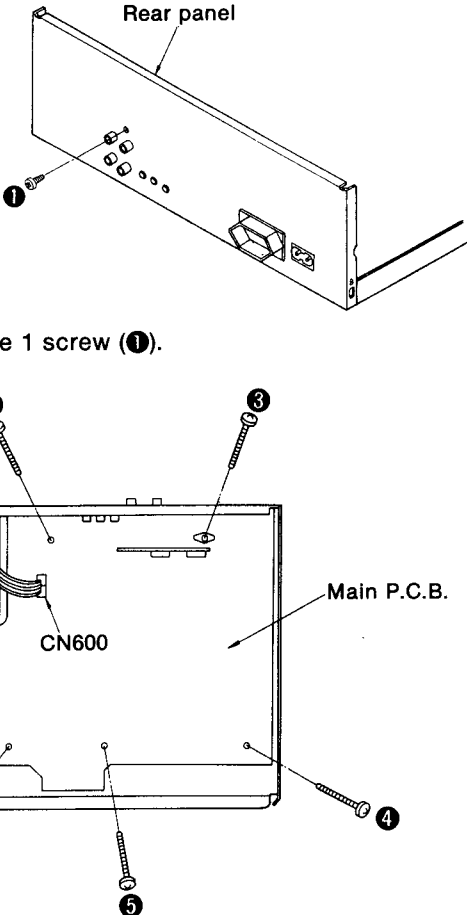
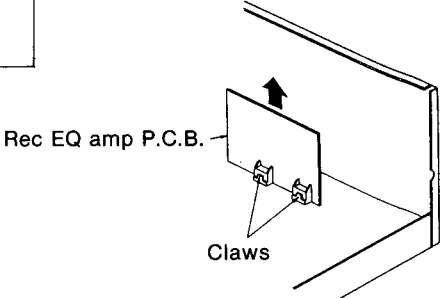


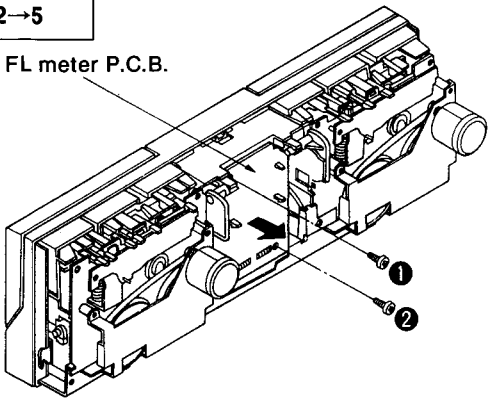
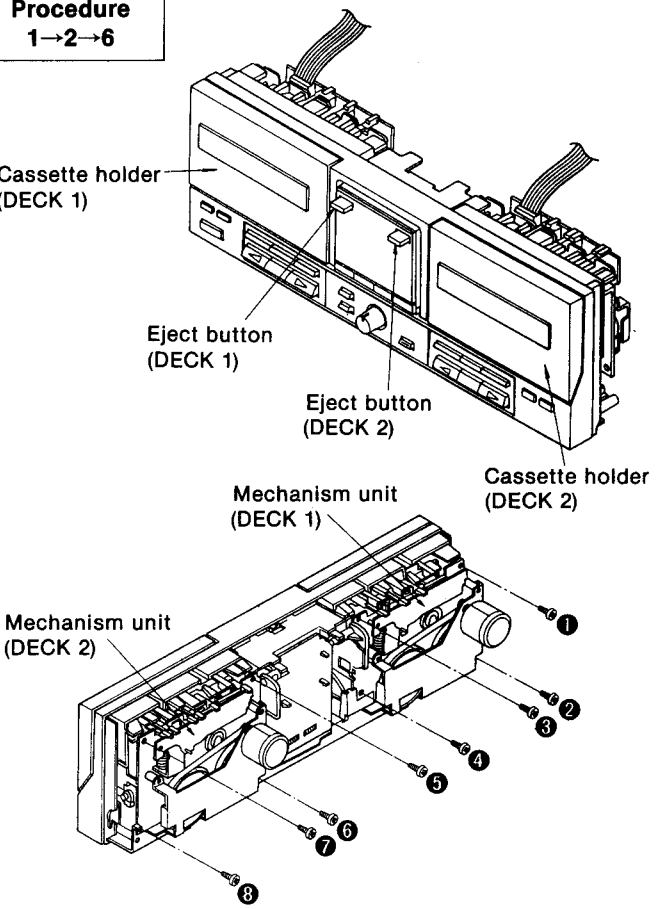
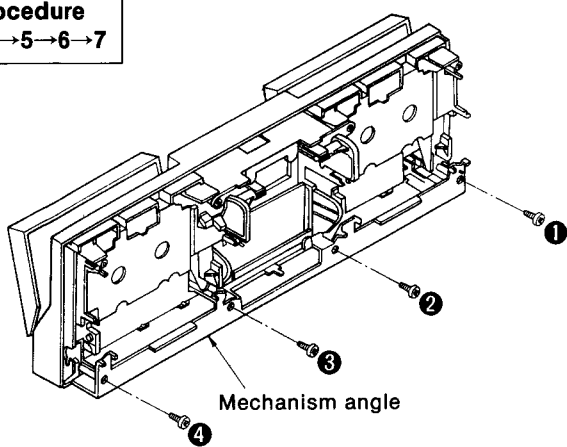
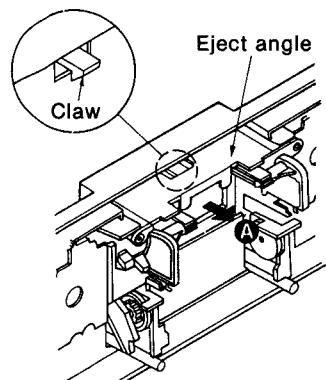
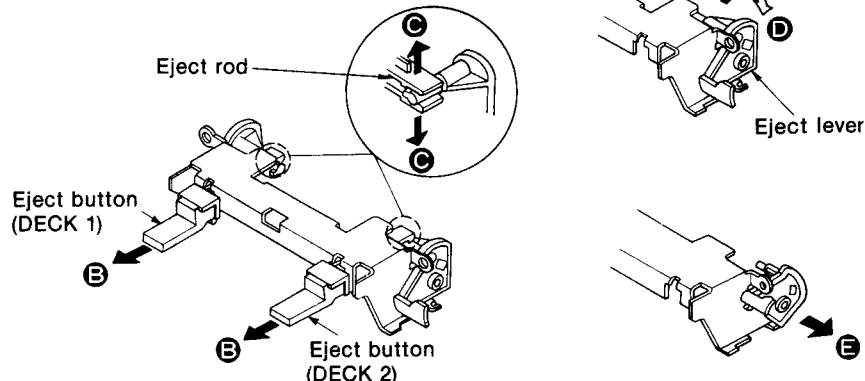
- A Tape counter**
Indicates the amount of tape movement (separately for tape deck 1 and tape deck 2).
- B Reverse-side indicator (◁)**
Illuminates during playback or recording to indicate that side "B" of the tape is being used.
- C Recording indicator (REC)**
This indicator illuminates to indicate that this tape deck is in the recording stand-by mode, or is recording.
- D Remote-control indicator (DECK 1 REMOTE, DECK 2 REMOTE)**
This indicator illuminates to indicate that this tape deck can now be controlled by the remote-control transmitter (included with tuner).
- E Playback indicator (PLAY)**
When this indicator illuminates steadily, it indicates that this tape deck is in the playback mode or the recording mode. When it flashes continually, this is an indication that this tape deck is in the pause mode or the recording stand-by mode. When it flashes rapidly, this is an indication that this tape deck is in the search mode.
- F Forward-side indicator (▷)**
Illuminates during playback or recording to indicate that side "A" of the tape is being used.

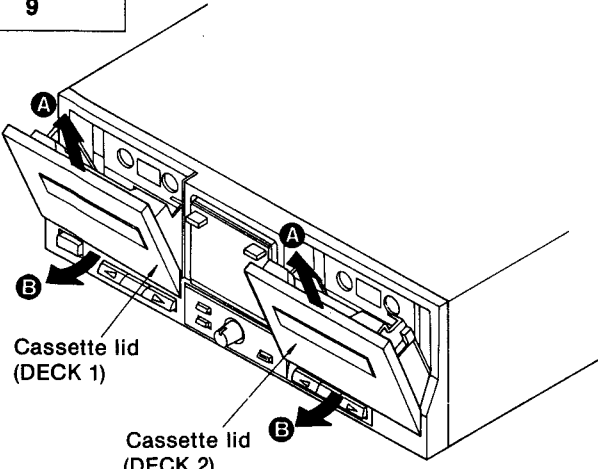
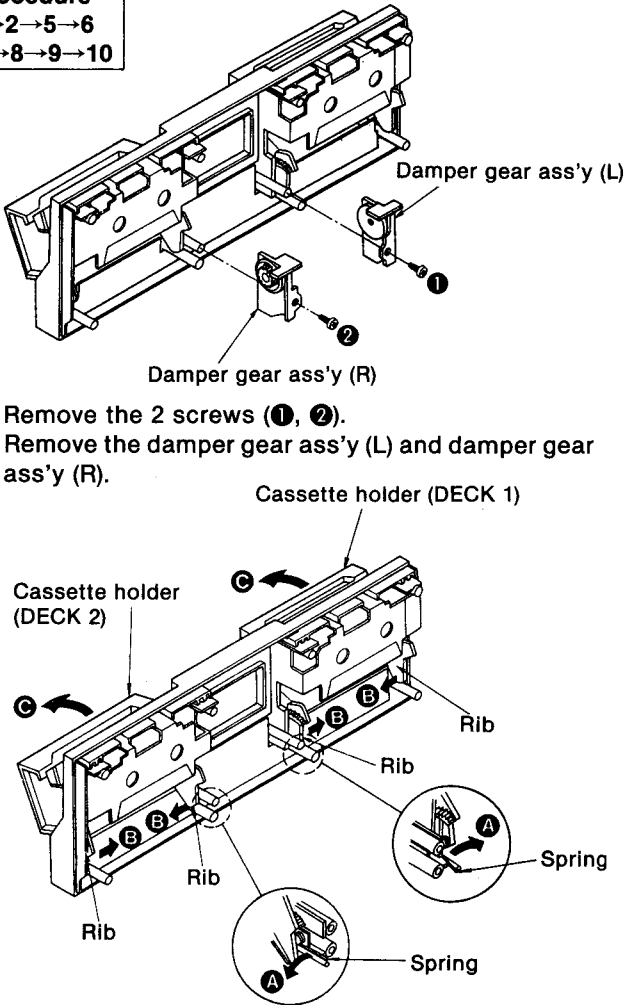
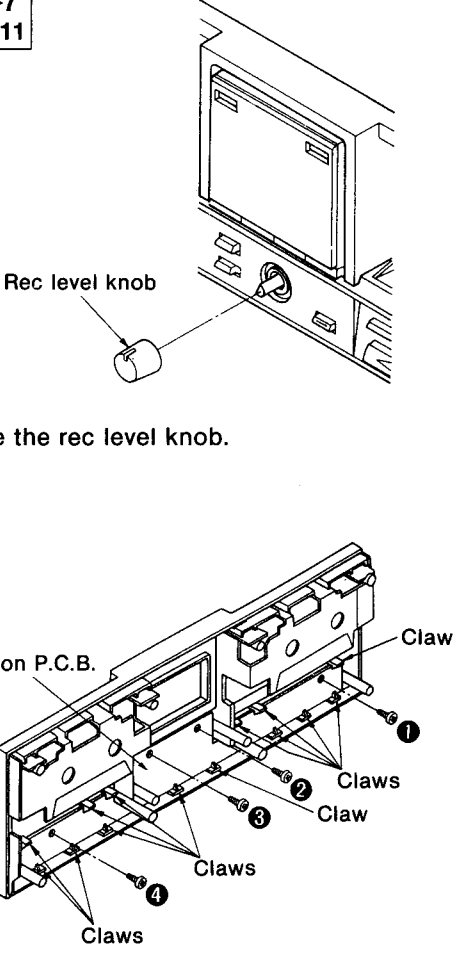
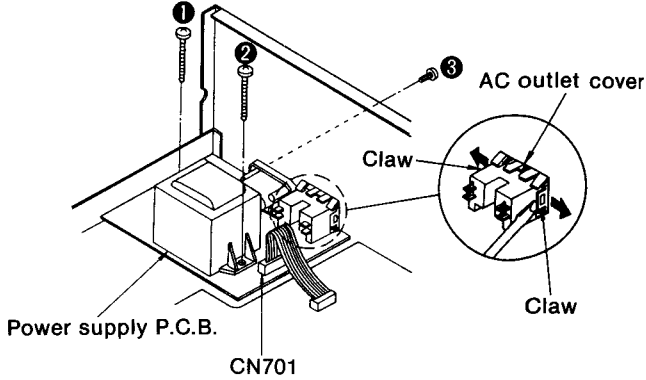
DISASSEMBLY INSTRUCTIONS

“ATTENTION SERVICER”

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

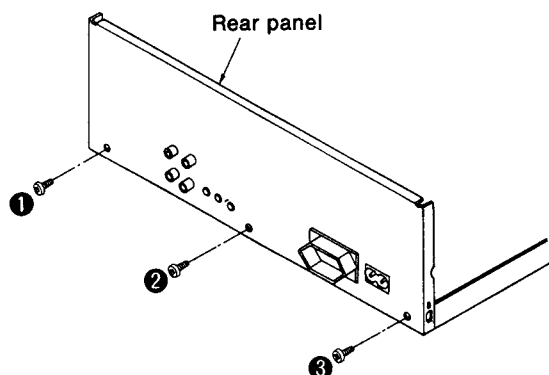
Ref. No. 1	Removal of the cabinet	Ref. No. 2	Removal of the front panel ass'y
Procedure 1	 <p>• Remove the 6 screws (①~⑥).</p>	Procedure 1→2	 <ol style="list-style-type: none"> 1. Remove the 4 screws (①~④). 2. Remove the 4 connectors (CP1, CP2, CP17, CP18). 3. Remove the 5 flat cables (CN3, CN4, CN5, CN6, CN8). 4. Remove the front panel ass'y in the direction of arrow. <p>How to remove the flat cable</p> <ul style="list-style-type: none"> • Pull out the flat cable while pressing the connector. (CN3, CN5, CN8) 1. Lift the connector. 2. Pull out the flat cable. (CN4, CN6) 
Ref. No. 3	Removal of the main P.C.B.	Ref. No. 4	Removal of the rec EQ amp P.C.B.
Procedure 1→2→3	 <ol style="list-style-type: none"> 1. Remove the 1 screw (①). 2. Remove the 5 screws (②~⑥). 3. Remove the 1 flat cable (CN600). 	Procedure 1→4	 <p>• Release the 2 claws and then remove the rec EQ amp P.C.B. in the direction of arrow.</p>

Ref. No. 5	Removal of the FL meter P.C.B.	Ref. No. 6	Removal of the mechanism units (DECK 1, DECK 2)
Procedure 1→2→5	 <p>FL meter P.C.B.</p> <ol style="list-style-type: none"> 1. Remove the 2 screws (①, ②). 2. Remove the FL meter P.C.B. in the direction of arrow. 	 <p>Cassette holder (DECK 1)</p> <p>Eject button (DECK 1)</p> <p>Eject button (DECK 2)</p> <p>Cassette holder (DECK 2)</p> <p>Mechanism unit (DECK 1)</p> <p>Mechanism unit (DECK 2)</p> <p>■ Removal of the mechanism unit (DECK 1)</p> <ol style="list-style-type: none"> 1. Press the eject button and open the cassette holder. 2. Remove the 4 screws (①~④). <p>■ Removal of the mechanism unit (DECK 2)</p> <ol style="list-style-type: none"> 1. Press the eject button and open the cassette holder. 2. Remove the 4 screws (⑤~⑧). 	
Ref. No. 7	Removal of the mechanism angle		
Procedure 1→2→5→6→7	 <p>Mechanism angle</p> <p>• Remove the 4 screws (①~④).</p>		
Ref. No. 8	Removal of the eject angle, eject buttons, and eject lever		
Procedure 1→2→5→6→8	 <p>Eject angle</p> <p>Claw</p> <ol style="list-style-type: none"> 1. Release the 1 claw. 2. Pull out the eject angle in the direction of arrow ①. 	 <p>Eject rod</p> <p>Eject button (DECK 1)</p> <p>Eject button (DECK 2)</p> <p>Eject lever</p> <ol style="list-style-type: none"> 3. Pull out the claw of the eject rod in the direction of arrow ②, remove the eject buttons and the eject rod in the direction of arrow ③. 4. Turn the eject lever in the direction of arrow ④, and remove the eject lever in the direction of arrow ⑤. 	

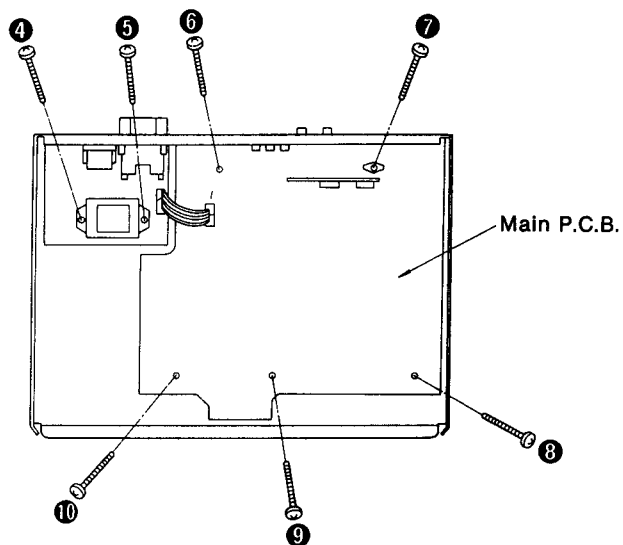
Ref. No. 9	Removal of the cassette lid (DECK 1, DECK 2)	Ref. No. 10	Removal of the cassette holder (DECK 1, DECK 2)
Procedure 9	 <p>Cassette lid (DECK 1)</p> <p>Cassette lid (DECK 2)</p> <ul style="list-style-type: none"> Lift the cassette lid in the direction of arrow A and remove it in the direction of arrow B. 	Procedure 1→2→5→6 →7→8→9→10	 <p>Damper gear ass'y (L)</p> <p>Damper gear ass'y (R)</p> <p>Cassette holder (DECK 1)</p> <p>Cassette holder (DECK 2)</p> <p>Rib</p> <p>Rib</p> <p>Rib</p> <p>Rib</p> <p>Spring</p> <p>Spring</p> <ol style="list-style-type: none"> Remove the 2 screws (1, 2). Remove the damper gear ass'y (L) and damper gear ass'y (R). Remove the springs in the direction of arrow A. Remove the ribs in the direction of arrow B. Remove the cassette holder in the direction of arrow C.
Ref. No. 11	Removal of the operation P.C.B.	Ref. No. 12	Removal of the power supply P.C.B.
Procedure 1→2→5→6→7 →8→9→10→11	 <p>Rec level knob</p> <p>Operation P.C.B.</p> <p>Claw</p> <p>Claws</p> <p>Claws</p> <p>Claws</p> <p>Claws</p> <ol style="list-style-type: none"> Remove the rec level knob. Remove the 4 screws (1~4). Release the 14 claws. 	Procedure 1→12	 <p>AC outlet cover</p> <p>Claw</p> <p>Claw</p> <p>Power supply P.C.B.</p> <p>CN701</p> <ol style="list-style-type: none"> Remove the 1 flat cable (CN701). Remove the 3 screws (1~3). Release the 2 claws of the AC outlet cover.

Ref. No.
13

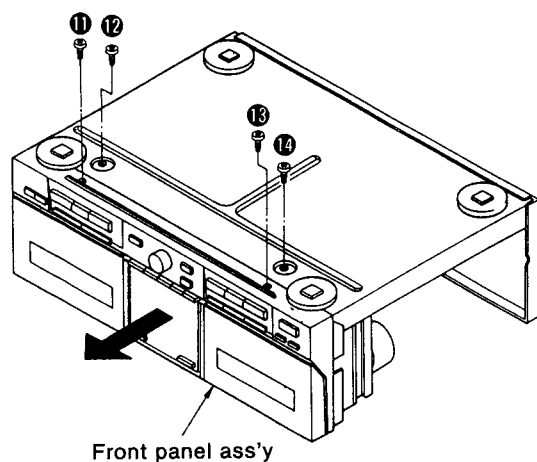
How to check the main P.C.B.

Procedure
1→13

1. Remove the 3 screws (①~③).

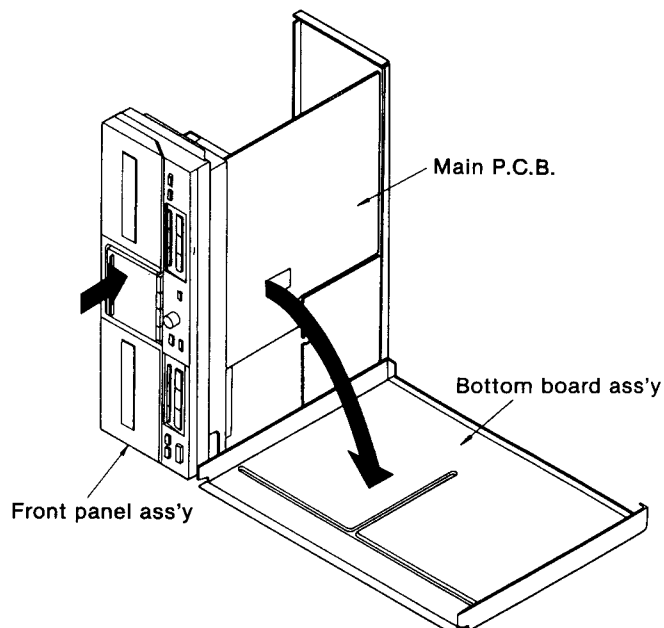


2. Remove the 7 screws (④~⑩).



3. Remove the 4 screws (⑪~⑭).

4. Remove the front panel ass'y in the direction of arrow.



5. Remove the bottom board ass'y.

6. Reinstall the front panel ass'y to the main P.C.B.

MEASUREMENTS AND ADJUSTMENTS

Measurement Condition

- Rec. level control; Maximum
- Reverse-mode selector switch; \longleftrightarrow
- Tape-to-tape recording tape-speed selector; X1
- Dolby NR selector switch; Off

- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature $20 \pm 5^\circ\text{C}$ ($68 \pm 9^\circ\text{F}$)

Measuring instrument

- EVM (Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter
- AF oscillator

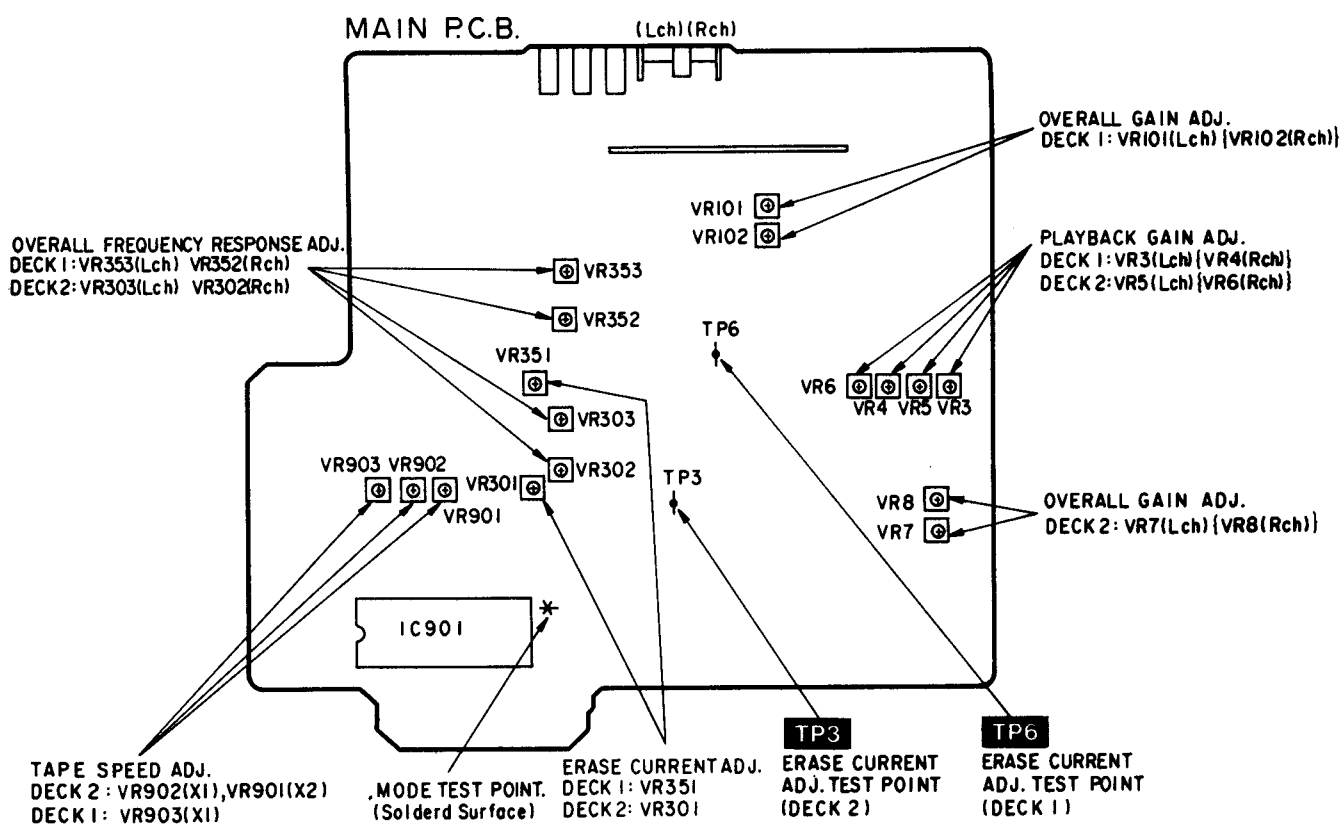
- ATT (Attenuator)
- DC voltmeter
- Resistor (600Ω)

Test tape

- Head azimuth adjustment (8kHz, -20dB); QZZCFM
- Tape speed adjustment (3kHz, -10dB); QZZCWAT
- Playback frequency response (315Hz, 12.5kHz, 10kHz, 8kHz, 4kHz, 1kHz, 250Hz, 125Hz, 63Hz, -20dB); QZZCFM

- Playback gain adjustment (315Hz, 0dB); QZZCFM
- Overall frequency response, Overall gain adjustment
Normal reference blank tape; QZZCRA
CrO₂ reference blank tape; QZZCRX
Metal reference blank tape; QZZCRZ

Adjustment Points



HEAD AZIMUTH ADJUSTMENT (DECK 1/2)

1. Playback the azimuth adjustment portion (8 kHz, -20 dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the L-CH and R-CH are maximized and the lissajous waveform, as illustrated, approaches 0 degrees.

Note: If L-CH and R-CH are not maximized at the same point, adjust to the point where the levels of each channel are maximized and equal.

2. Perform the same adjustment in the play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

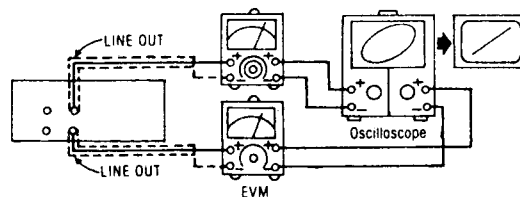


Fig. 1

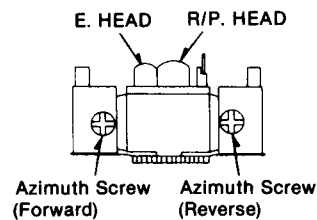


Fig. 2

TAPE SPEED ADJUSTMENT (DECK 1/2)**Normal speed**

1. Shift the Tape-to-tape recording tape-speed selector to "X1" and press the synchro-start button.
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust Deck 1=VR903 and Deck 2=VR902 so that the output is within the standard value.

High speed

4. Shift the Tape-to-tape recording tape-speed switch to "X2" and press the synchro-start button.
5. Playback the middle portion of the test tape (QZZCWAT).
6. Adjust Deck 2=VR901 so that the output is within the standard value.

Note: The Normal speed adjustment must be done before the High speed adjustment.

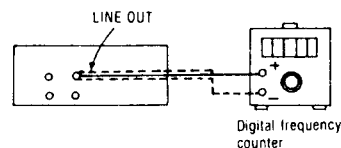


Fig. 3

(DECK 1) Standard value: 3000 ± 15 Hz [Normal (X1)], 6000 ± 600 Hz [High (X2), only confirmation]

(DECK 2) Standard value: 3000 ± 15 Hz [Normal (X1)], 6000 ± 30 Hz [High (X2)]

PLAYBACK GAIN ADJUSTMENT (DECK 1/2)

1. Playback the gain adjusted portion (315 Hz, 0 dB) of the test tape (QZZCFM).
2. Adjust Deck 1=VR3 (L-CH) [[VR4 (R-CH)]] and Deck 2=VR5 (L-CH) [[VR6 (R-CH)]] so that the output is within the standard value.

Standard value: $0.4V \pm 0.5$ dB

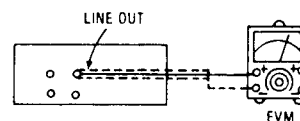


Fig. 4

PLAYBACK FREQUENCY RESPONSE (DECK 1/2)

1. Playback the frequency response portion (315 Hz, 12.5 kHz ~ 63 Hz, -20 dB) of the test tape (QZZCFM).
2. Assure that the frequency response is within the range shown in Fig. 6 for both L-CH and R-CH.

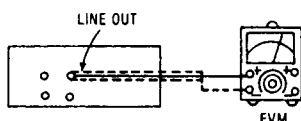


Fig. 5

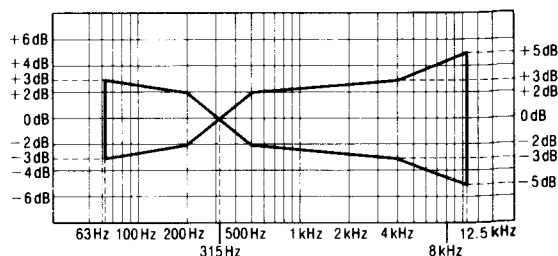
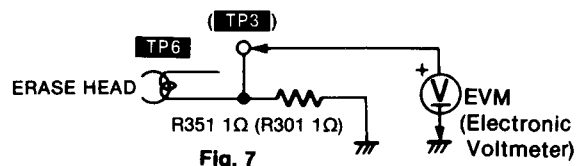


Fig. 6

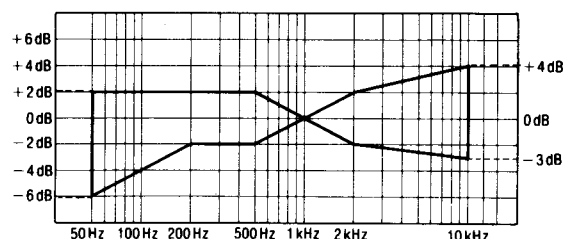
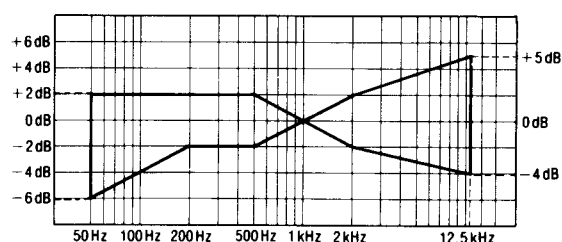
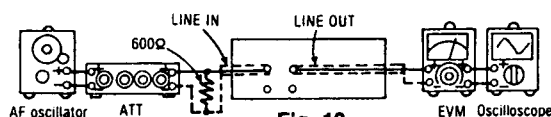
ERASE CURRENT ADJUSTMENT (DECK 1/2)

1. Insert the Metal blank test tape (QZZCRZ) and set the unit to the Record Pause mode.
2. Adjust Deck 1=VR351 (Deck 2=VR301) so that the output between Deck 1=TP6 (Deck 2=TP3) and GND is within the standard value.

Standard value: $190 \pm 5 \text{ mA}$ (Metal)...EVM Reading: $190 \pm 5 \text{ mV}$

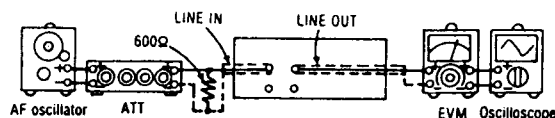
**OVERALL FREQUENCY RESPONSE (DECK 1/2)**

1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record Pause mode.
2. Apply a reference input signal (1 kHz, -24dB) through an attenuator.
3. Attenuate the signal by 20dB and adjust the frequency from 50Hz~10kHz.
4. Record the frequency sweep.
5. Playback the recorded signal and assure that it is within the range shown in Fig. 8 in comparison to the reference frequency (1kHz).
6. If it is not within the standard range, adjust Deck 1=VR353 (Deck 2=VR303) (L-CH) and Deck 1=VR352 (Deck 2=VR302) (R-CH) so that the frequency level is within the standard range.
 - Level up in high frequency rangeIncrease the bias current.
 - Level down in high frequency range ...Decrease the bias current.
7. Repeat steps 2~6 above using the CrO₂ tape (QZZCRX) and the Metal tape (QZZCRZ) increasing the frequency range to 12.5kHz (50Hz~12.5kHz).
8. Assure that the level is within the range shown in Fig. 9.

Normal Overall frequency response chart (NR OUT)**Fig. 8****CrO₂ Metal Overall frequency response chart (NR OUT)****Fig. 9****Fig. 10****OVERALL GAIN ADJUSTMENT (DECK 1/2)**

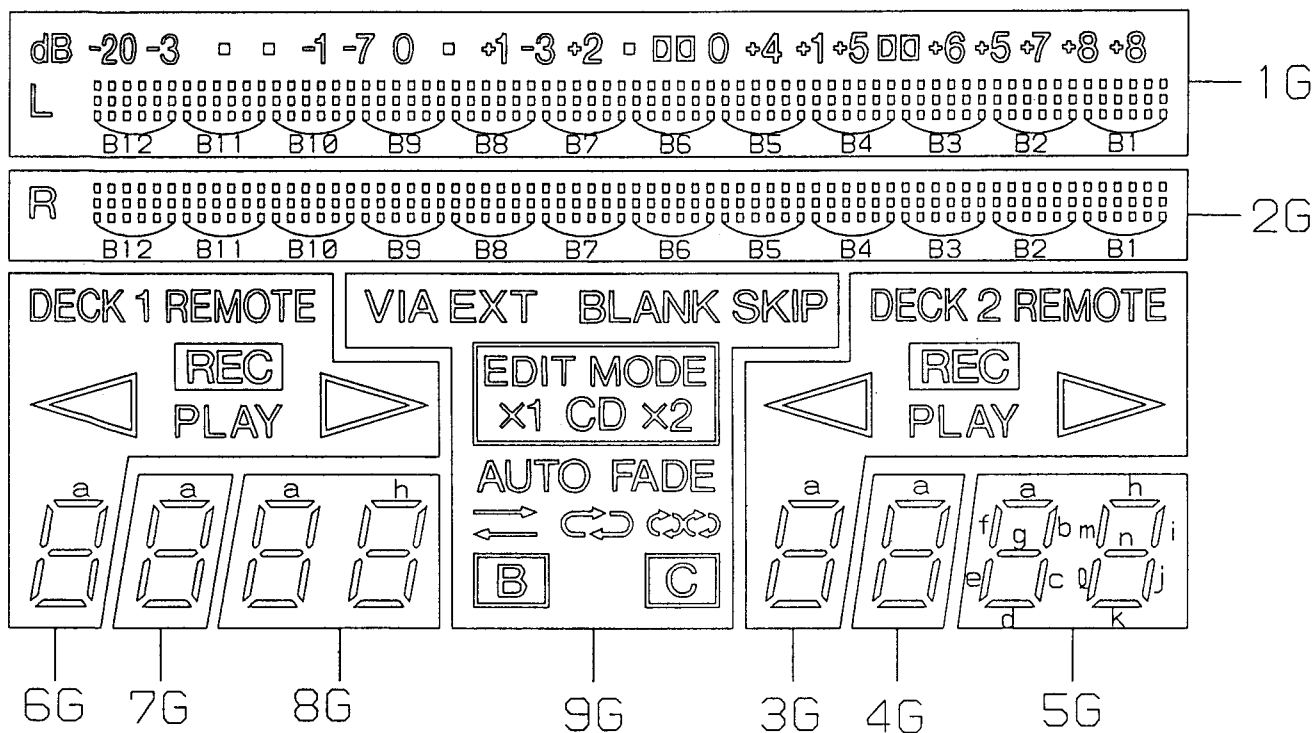
1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record pause mode.
2. Apply a reference input signal (1kHz, -24dB). Attenuate the output so that its level becomes 0.4V.
3. Record this input signal.
4. Playback the signal recorded in step 3 above, and assure that the output is within the standard value.
5. If it is not within the standard value, adjust Deck 1=VR101 (Deck 2=VR7) (L-CH) and Deck 1=VR102 (Deck 2=VR8) (R-CH).
6. Repeat the step 2~5 above until the output is within the standard value.

Standard value: $0.4 \text{ V} \pm 0.5 \text{ dB}$

**Fig. 11**

INTERNAL CONNECTION OF FL

• Grid connection diagram



• Anode connection table

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1		n	-		n	-		B1	B1
P2		j	-	PLAY	j	-	PLAY	B2	B2
P3		l	-		l	-		B3	B3
P4	EDIT MODE	k	-	DECK 1 REMOTE	k	-	DECK 2 REMOTE	B4	B4
P5	CD	h	-	REC	h	-	REC	B5	B5
P6	x2	a	a	a	a	a	a	B6	B6
P7	x1	b	b	b	b	b	b	B7	B7
P8	-	f	f	f	f	f	f	B8	B8
P9		g	g	g	g	g	g	B9	B9
P10		c	c	c	c	c	c	B10	B10
P11	VIA EXT	e	e	e	e	e	e	B11	B11
P12	BLANK SKIP	d	d	d	d	d	d	B12	B12
P13	-	i	-	-	i	-	-	-	S1
P14	-	m	-	-	m	-	-	-	S2
P15	-	-	-	-	-	-	-	R	L dB
P16	AUTO FADE	-	-	-	-	-	-	-	-

• Pin connection

PIN NO.	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F 2	F 2	N P	N P	P 15	P 12	P 11	P 10	P 9	P 8	P 7	P 6	P 5	P 4	P 3	P 2	P 1	P 16	P 14	P 13	N C	9 G	8 G	7 G	6 G	5 G	4 G	3 G	2 G	1 G	N P	N P	F 1	F 1

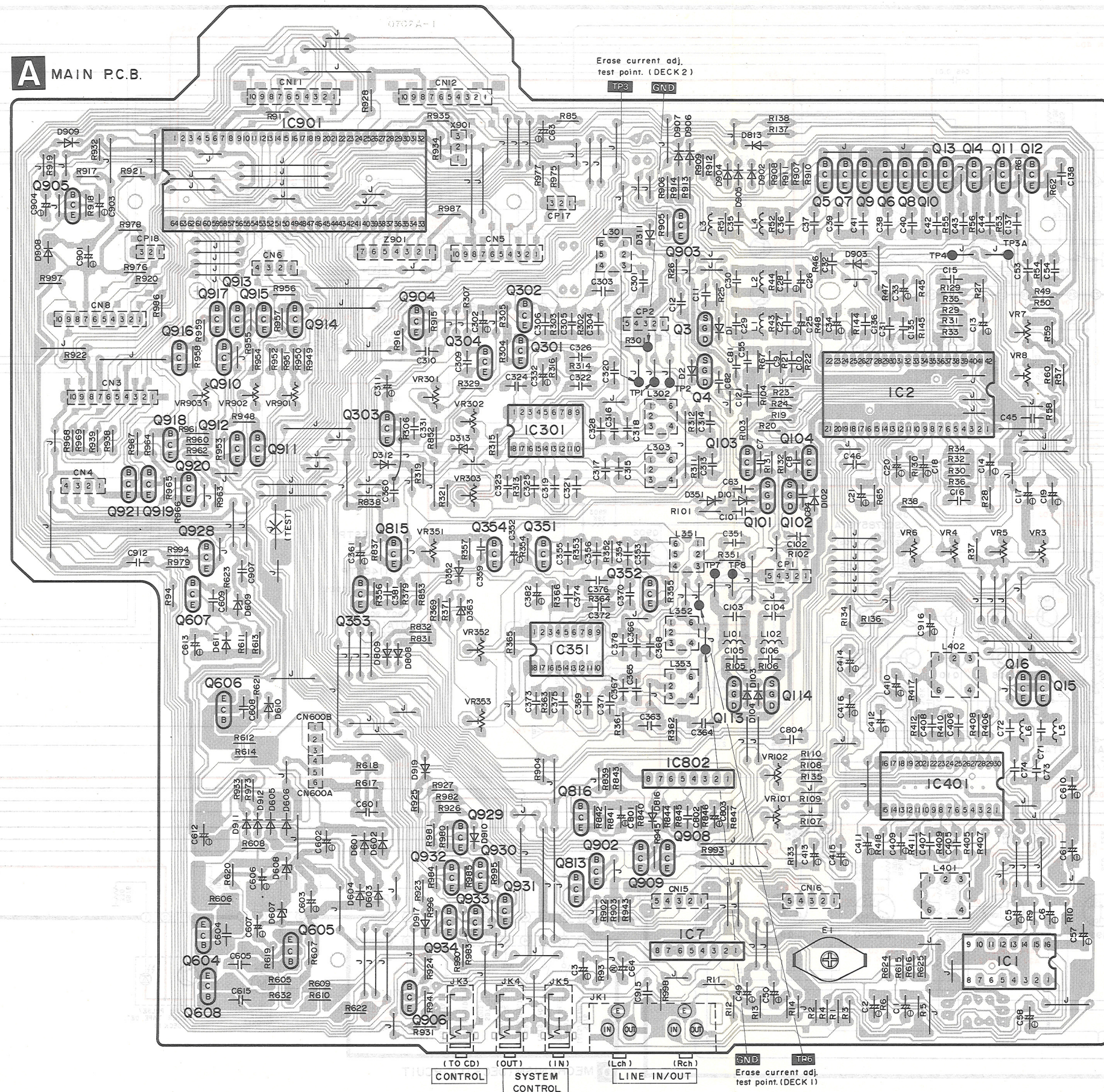
Note

- 1) F1, F2Filament
2) NPNo pin

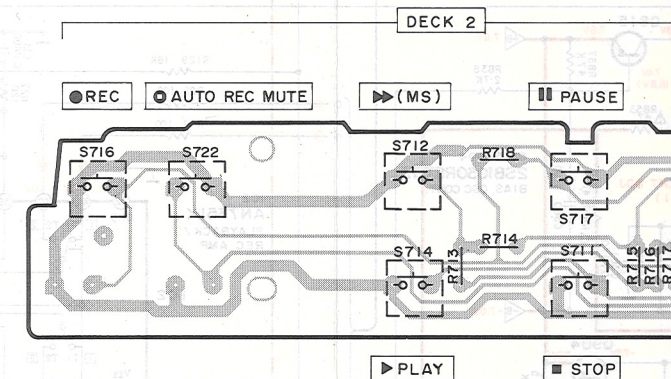
- 3) NCNo connection
4) 1G~9GGrid

PRINTED CIRCUIT BOARDS

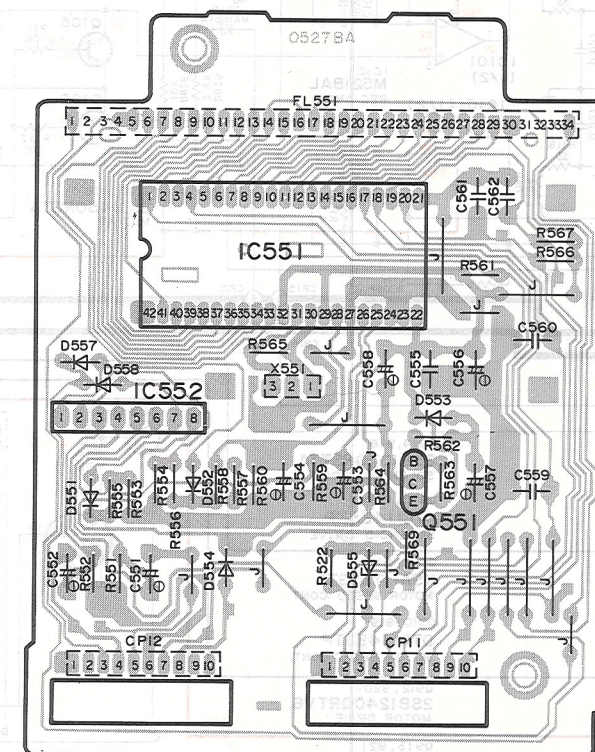
A MAIN P.C.B.



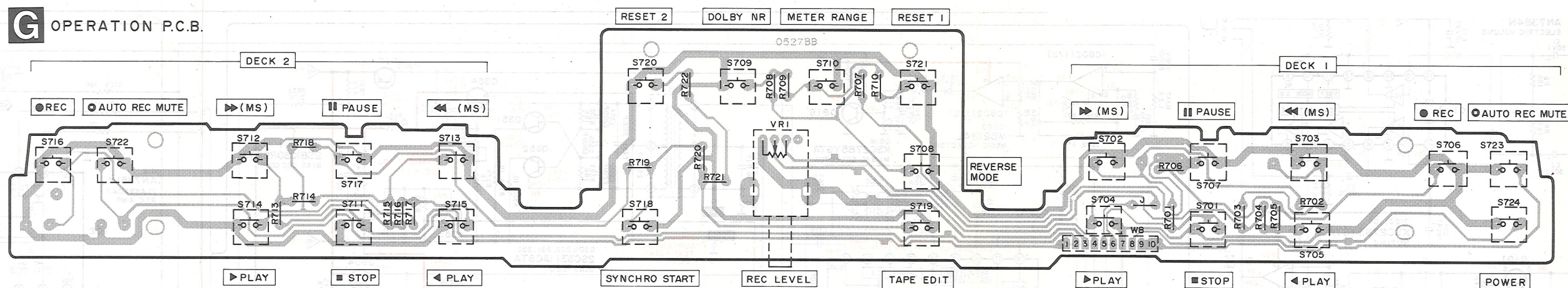
G OPERATION P.C.B.



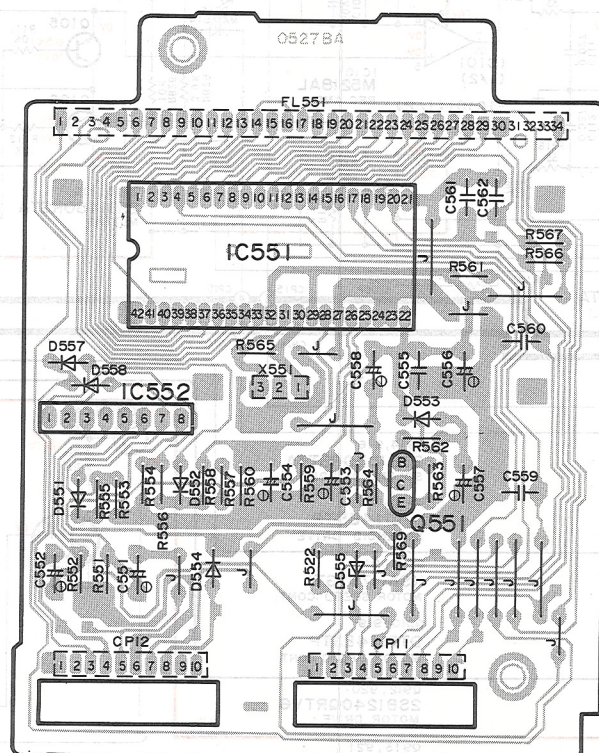
F FL METER P.C.B.



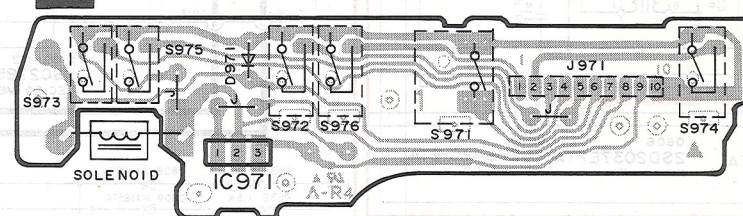
G OPERATION P.C.B.



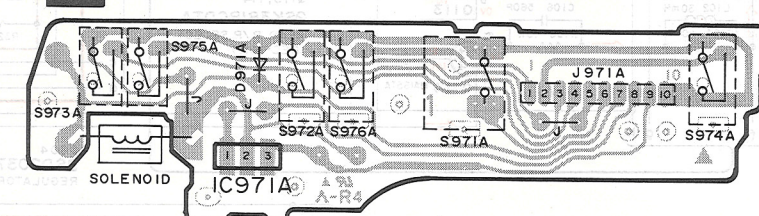
F FL METER P.C.B.

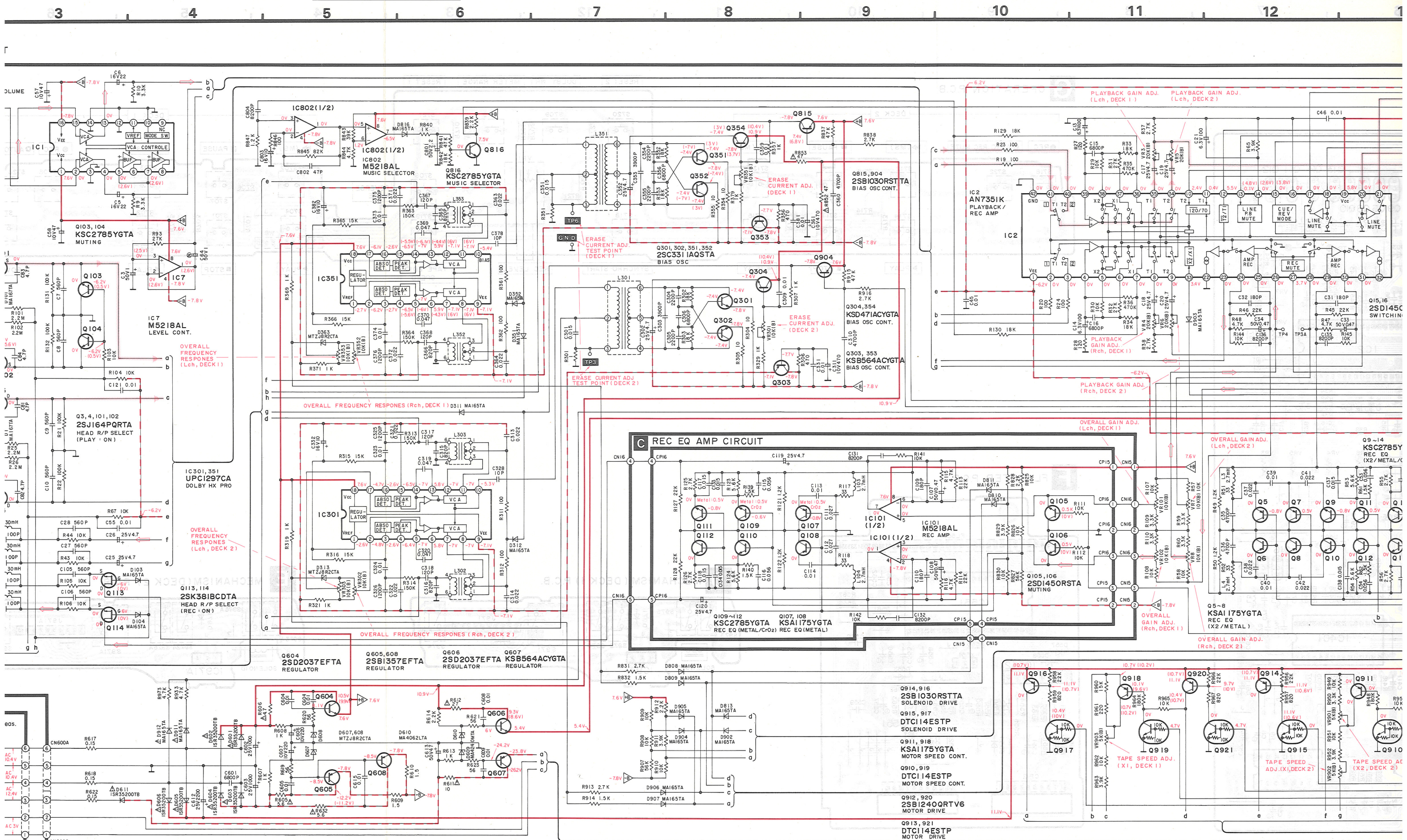


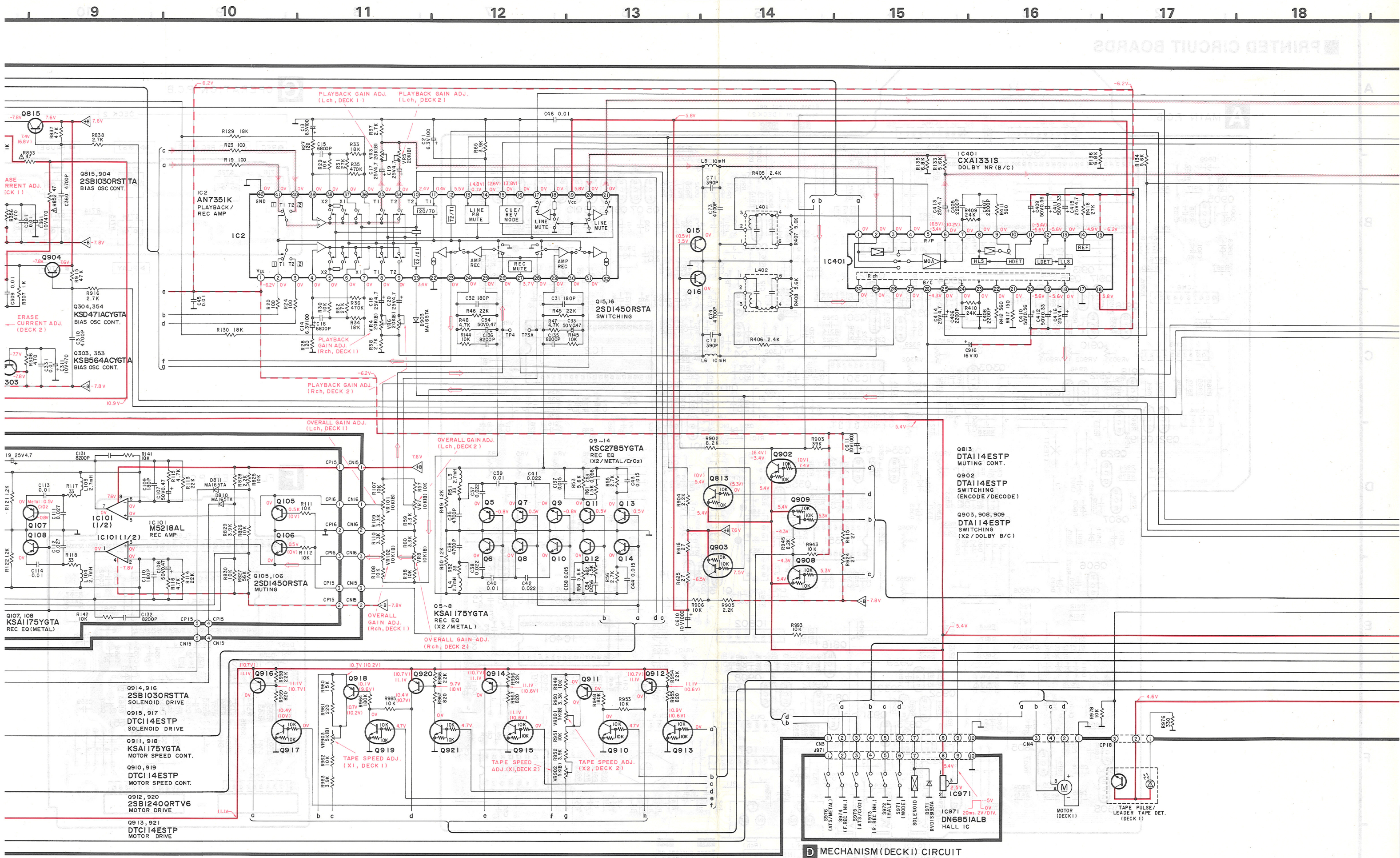
D MECHANISM (DECK 1) P.C.B.



E MECHANISM (DECK 2) P.C.B.







D MECHANISM (DECK I) CIRCUIT

Q905
KSC2785YGT
SWITCHING
(RESET)

Q929,932
KSC2785YGT
BUS LINE DRIVE

Q930,933
DTA114ESTP
BUS LINE DRIVE

Q931,934
DTA114ESTP
BUS LINE DRIVE

Q928
DTA114ESTP
SWITCHING (REC VR CONT.)

Q906
DTA114ESTP
SWITCHING (CD CONT.)

FL METER CIRCUIT

TEST TERMINAL

TEST

TAPE PULSE/LEADER TAPE DET. (DECK 2)

E MECHANISM(DECK2) CIRCUIT

MOTOR (DECK2)

G OPERATION CIRCUIT

CONTROL (TO CD)

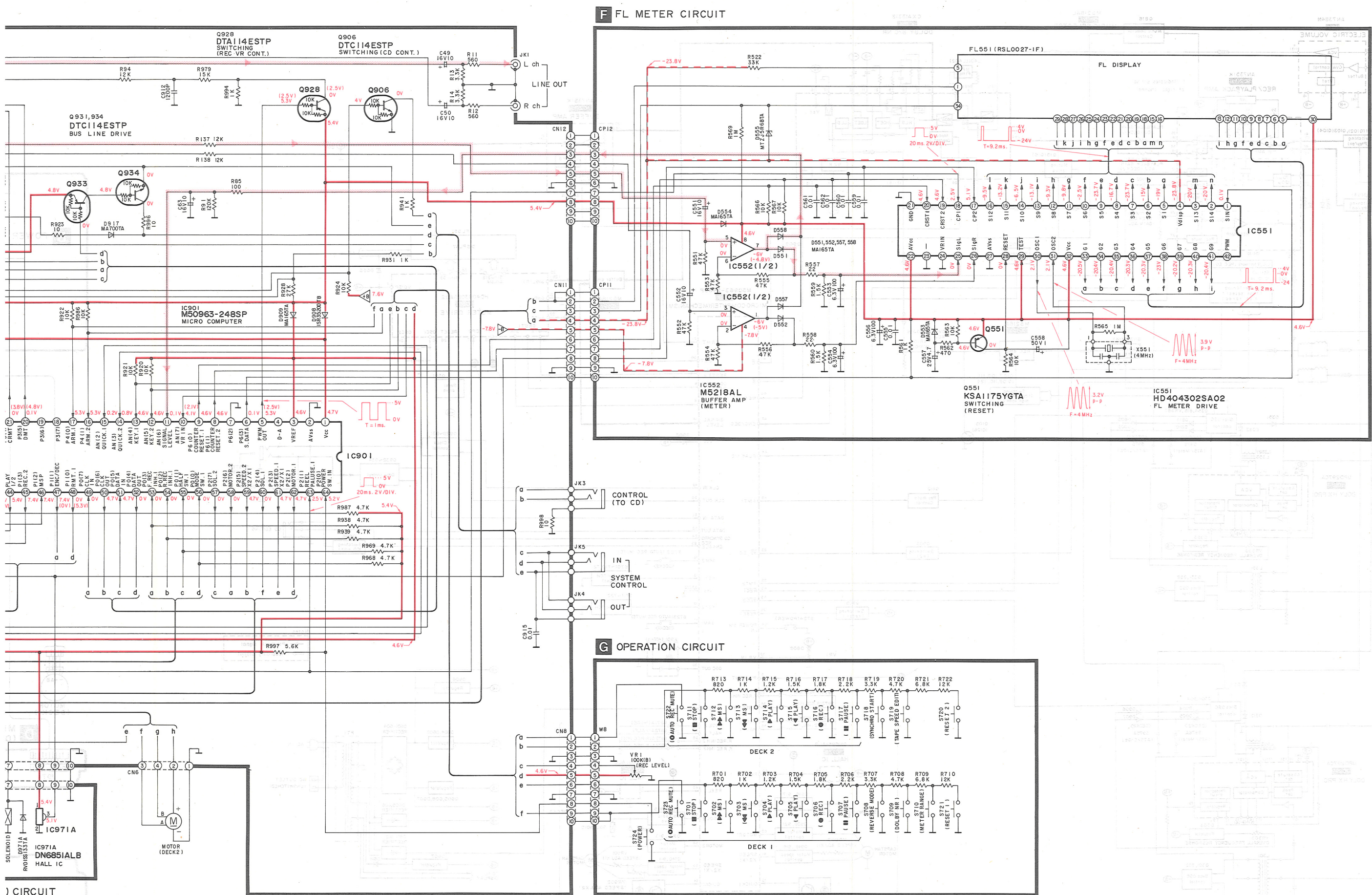
IN SYSTEM CONTROL

OUT

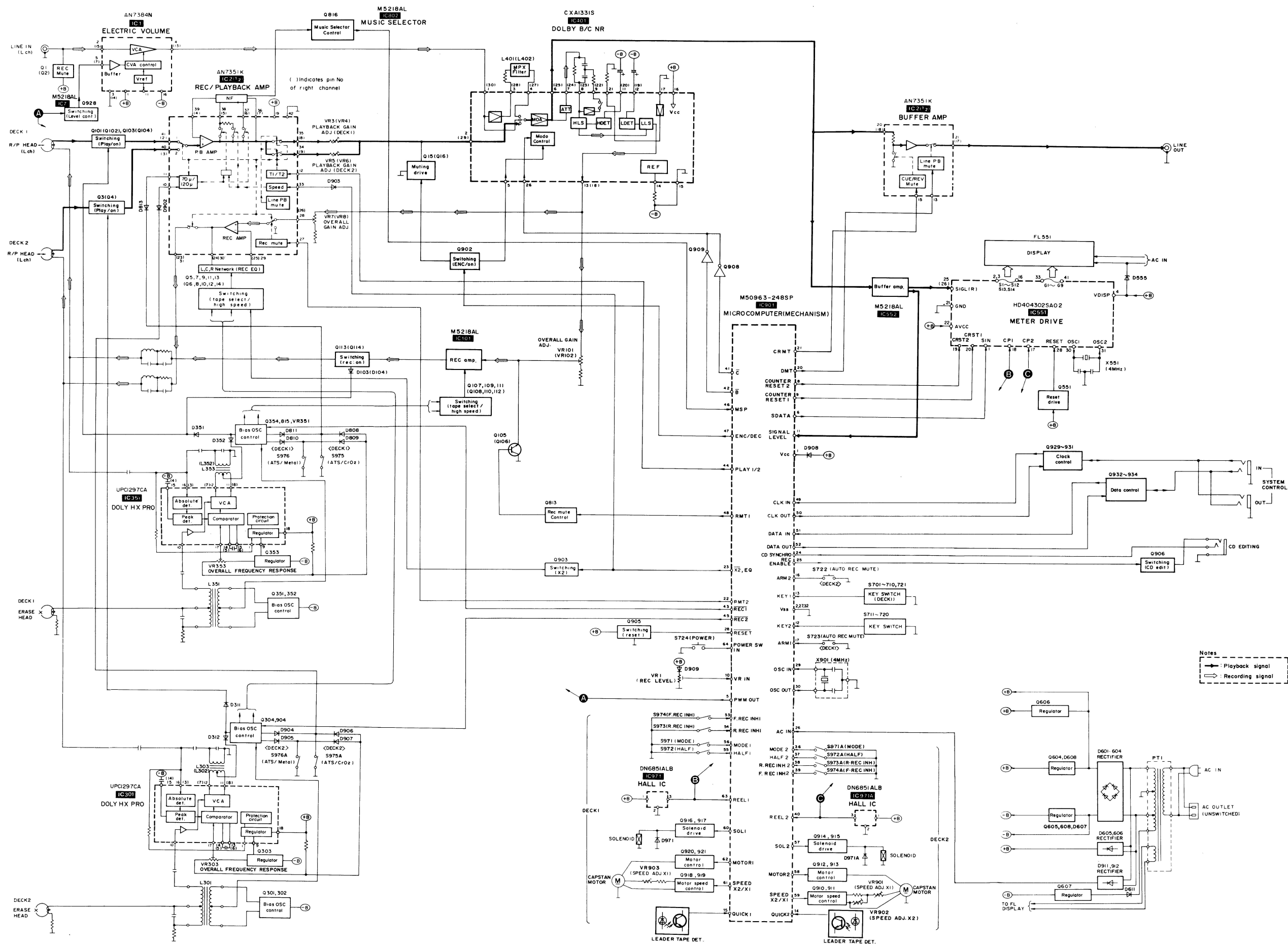
VR1 (100K) (REC LEVEL)

DECK 2

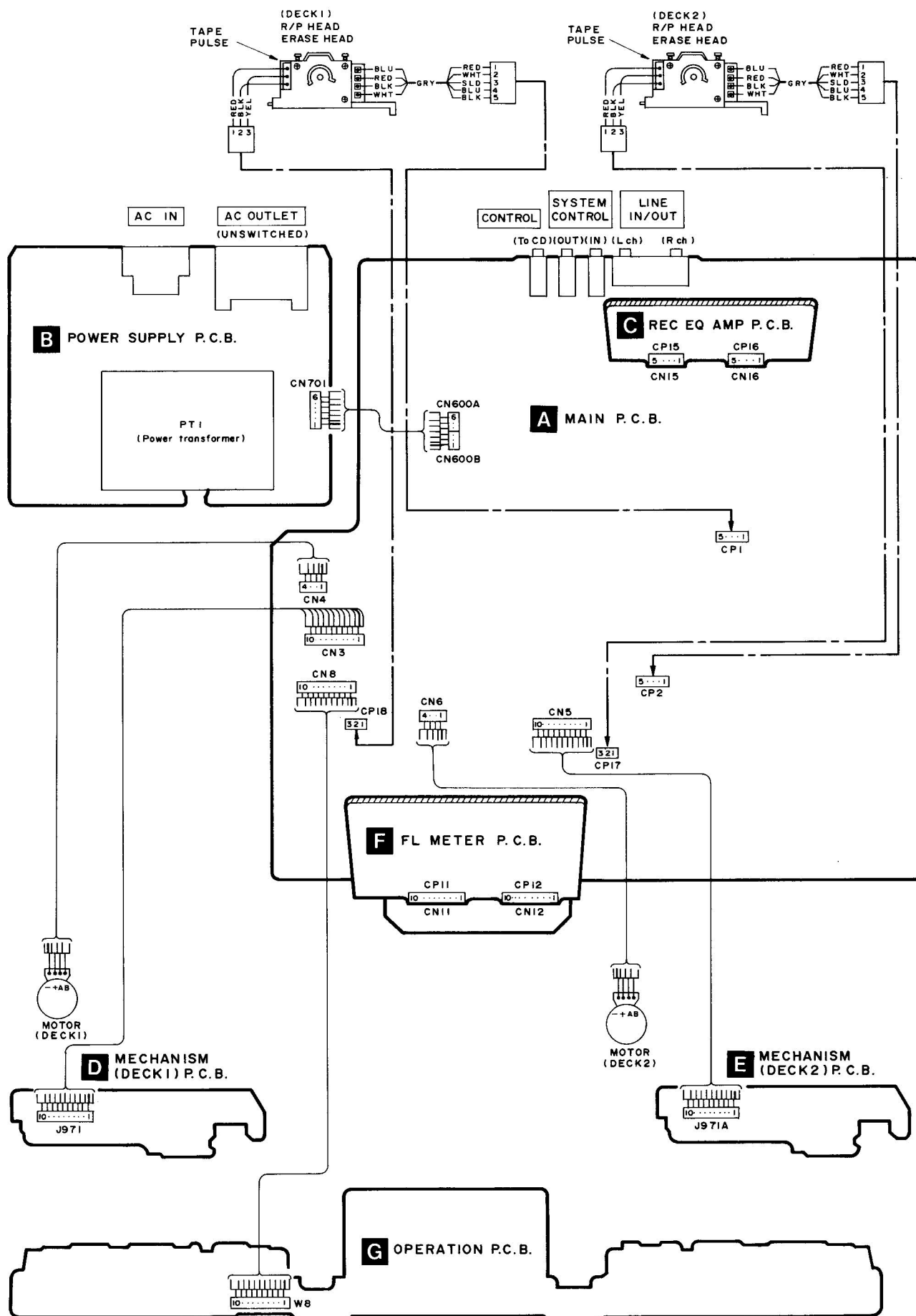
DECK 1



BLOCK DIAGRAM



WIRING CONNECTION DIAGRAM



■ TERMINAL FUNCTION OF IC'S

• IC901 (M50963-248SP): MICROCOMPUTER (This microcomputer is used for mechanical operation.)

Pin No.	Mark	I/O Division	Function	Pin No.	Mark	I/O Division	Function
1	V _{CC}	I	Power supply terminal	23	P3 (2)	O	Playback equalizer select signal with tape edit of deck 1 (Normal: "H", X2 edit: "L")
2	AV _{SS} (GND)	—	GND terminal	24	P3 (1)	I	CD Synchro rec. signal (CD STOP: "H", CD PLAY: "L")
3	V _{REF}	I	Reference voltage terminal	25	P3 (0)	O	CD Synchro rec. possible/impossible signal (possible: "L", impossible: "H")
4	D-A	—	Not used, open	26	INTI	I	"AC POWER OFF" det. terminal
5	PWM	O	Pulse width modulated signal	27	CNV _{SS}	—	GND terminal
6	P6 (3)	O	Serial signal for FL display	28	RESET	I	Reset signal ("L"=RESET, Normal: "H")
7	P6 (2)	—	Not used, open	29	X _{IN}	I	Clock OSC terminal
8	P6 (1)	O	Counter reset signal of deck 2 ("RESET": "L", others: "H")	30	X _{OUT}	O	
9	P6 (0)	O	Counter reset signal of deck 1 ("RESET": "L", others: "H")	31	φ	—	Not used, open
10	AN (7)	I	Variable voltage level signal of rec. level volume	32	V _{SS}	—	GND terminal
11	AN (6)	I	Peak voltage terminal of rec. signal	33	P5 (7)	I	Test terminal (Normal="H")
12	AN (5)	I	Operation key switches Deck 2: STOP, F.F./REW, PLAY, REC, PAUSE, SYNCHRO START, X1/X2, counter reset	34	P5 (6)	I	Model select (Normal: "H")
13	AN (4)	I	Operation key switches Deck 1: STOP, F.F./REW, F. PLAY, R. PLAY, REC, PAUSE, Reverse-mode, Dolby B/C, Meter-range, counter reset	35	P5 (5)	I	Model select (Normal: "H")
14	AN (3)	I	Leader tape det. signal of deck 2	36	P5 (4)	I	Mechanism mode switch ("ON": "L", "OFF": "H")
15	AN (2)	I	Leader tape det. signal of deck 1	37	P5 (3)	I	Cassette half det. switch ("ON": "L", "OFF": "H")
16	P4 (1)	I	"AUTO REC MUTE" key switch signal of deck 2 ("ON": "L", "OFF": "H")	38	P5 (2)	I	Reverse rec. inh. switch of deck 2 ("ON": "L", "OFF": "H")
17	P4 (0)	I	"AUTO REC MUTE" key switch signal of deck 1 ("ON": "L", "OFF": "H")	39	P5 (1)	I	Forward rec. inh. switch of deck 2 ("ON": "L", "OFF": "H")
18	P3 (7)	—	Not used	40	P5 (0)	I	Reel rotation pulse signal of deck 2
19	P3 (6)	—	Not used	41	P1 (7)	O	Dolby C "ON/OFF" select signal ("ON": "L", "OFF": "H")
20	P3 (5)	O	Mute signal of line out (Mute "ON": "H", Mute "OFF": "L")	42	P1 (6)	O	Dolby B "ON/OFF" select signal ("ON": "L", "OFF": "H")
21	P3 (4)	O	Mute signal with Cue/Review action (Mute "ON": "H", Mute "OFF": "L")	43	P1 (5)	O	Bias OSC "ON/OFF" select signal ("ON": "L", "OFF": "H")
22	P3 (3)	O	Rec. mute signal of deck 2 (Mute "ON": "H", Mute "OFF": "L")	44	P1 (4)	O	Playback amp. select signal (Deck 2-P.B: "L", others: "H")
				45	P1 (3)	O	Bias OSC "ON/OFF" select signal ("ON": "L", "OFF": "H")
				46	P1 (2)	I	Playback signal det. output signal ("ON": "L", "OFF": "H")

Pin No.	Mark	I/O Division	Function
47	P1 (1)	O	Dolby circuit encord/decord select signal (encord: "L", decord: "H")
48	P1 (0)	O	Rec. mute signal of deck 2 (Mute "ON": "H", Mute "OFF": "L")
49	P0 (7)	I	Bus clock signal
50	P0 (6)	O	
51	P0 (5)	I	Bus data signal
52	P0 (4)	O	
53	P0 (3)	I	Forward rec. inh. switch of deck 1 ("ON": "L", "OFF": "H")
54	P0 (2)	I	Reverse rec. inh. switch of deck 1 ("ON": "L", "OFF": "H")
55	P0 (1)	I	Cassette-half det. switch of deck 1 ("ON": "L", "OFF": "H")
56	P0 (0)	I	Mechanism mode-switch of deck 1 ("ON": "L", "OFF": "H")
57	P2 (7)	O	Mechanism plunger "ON/OFF" select signal of deck 2 ("ON": "H", "OFF": "L")

Pin No.	Mark	I/O Division	Function
58	P2 (6)	O	Mechanism motor "ON/OFF" select signal of deck 2 ("ON": "H", "OFF": "L")
59	P2 (5)	O	Mechanism motor speed select signal of deck 2 ("X1": "H", "X2": "L")
60	P2 (4)	O	Mechanism plunger "ON/OFF" select signal of deck 1 ("ON": "H", "OFF": "L")
61	P2 (3)	O	Mechanism motor speed select signal of deck 1 ("X1": "H", "X2": "L")
62	P2 (2)	O	Mechanism motor "ON/OFF" select signal of deck 1 ("ON": "H", "OFF": "L")
63	P2 (1)	I	Mechanism reel rotation pulse signal of deck 1
64	P2 (0)	I	Power switch ("ON": "L", "OFF": "H")

• IC551 (HD404302SA02): MICROCOMPUTER (This microcomputer is used for FL meter operation.)

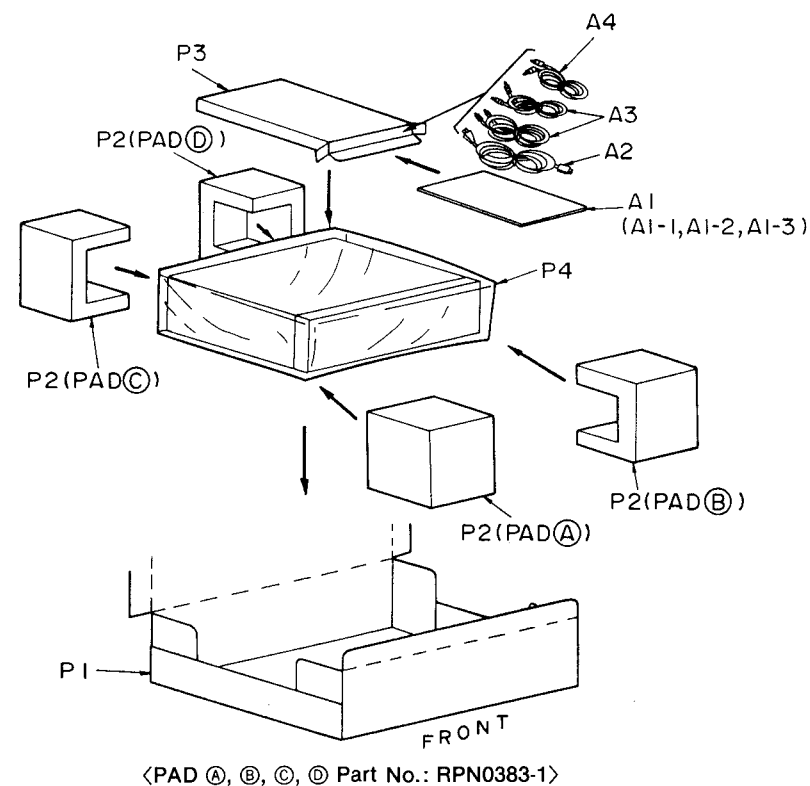
Pin No.	Mark	I/O Division	Function
1	SIN	I	Serial data signal
2 • 3 • 5 • 16	S1 } S14	O	Segment signal for FL display
4	V disp	I	Pull down power supply terminal ($-V_{CC}$)
17	CP2	I	Peel pulse signal of deck 2
18	CP1		
19	CRST2	I	Tape counter reset terminal of deck 2
20	CRST1	I	Tape counter reset terminal of deck 1
21	GND	—	GND terminal
22	AVCC	I	Power supply terminal

Pin No.	Mark	I/O Division	Function
23	—	—	—
24	VRIN	—	Rec level control signal
25	SIGL	I	Lch level signal
26	SIGR	I	Rch level signal
27	AVSS	—	GND terminal
28	RESET	I	Reset terminal ("RESET": "H")
29	TEST	I	Test terminal
30	OSC1	O	Clock OSC terminal (4MHz)
31	OSC2	I	
32	VCC	I	Power supply terminal
33 } 41	G1 } G9	O	Grid signal for FL display
42	PWM	—	Not used, open

■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

AN7384N 	UPC1297CA 	CXA1331S 	HD404302SA02 	AN7351K 	M50963-248SP
M5218AL 	DN6851ALB 	KSB564ACYGTA KSD471ACYGTA 			2SB1030RSTTA 2SD1450RSTA
2SB1357EFTA 2SD2037EFTA 	2SK381BCDTA 	2SJ164PQRTA 	2SB1240QRTV6 	 MA165TA MA167TA MA700TA 1SR35200TB RVD1SS133TA	
MTZJ5R6BTA MTZJ8R2CTA 	MA4062LTA 	MA4240MTA 			

■ PACKING



■ REPLACEMENT PARTS LIST

Notes : * Important safety notice:
Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		Q906	DTC114ESTP	TRANSISTOR	
				Q908, 909	DTA114ESTP	TRANSISTOR	
				Q910	DTC114ESTP	TRANSISTOR	
IC1	AN7384N	ELECTRIC VOLUME		Q911	KSA1175YGTA	TRANSISTOR	
IC2	AN7351K	PLAYBACK/REC AMP		Q912	2SB1240-P	TRANSISTOR	
IC7	M5218L	REC LEVEL CONTROL (DECK2)		Q913	DTC114ESTP	TRANSISTOR	
IC101	M5218L	REC LEVEL CONTROL (DECK1)		Q914	2SB1030QTA	TRANSISTOR	
IC301	UPC1297CA	DOLBY HX PRO (DECK2)		Q915	DTC114ESTP	TRANSISTOR	
IC351	UPC1297CA	DOLBY HX PRO (DECK1)		Q916	2SB1030QTA	TRANSISTOR	
IC401	CXA1331S	DOLBY B/C NR		Q917	DTC114ESTP	TRANSISTOR	
IC551	HD404302SA02	MICROCOMPUTER; FL METER		Q918	KSA1175YGTA	TRANSISTOR	
IC552	M5218L	BUFFER AMP		Q919	DTC114ESTP	TRANSISTOR	
IC802	M5218L	MUSIC SELECTOR AMP		Q920	2SB1240-P	TRANSISTOR	
IC901	M50963-248SP	MICROCOMPUTER; MECHANICAL		Q921	DTC114ESTP	TRANSISTOR	
IC971	DN6851ALB	HALL (DECK1)		Q928	DTA114ESTP	TRANSISTOR	
IC971A	DN6851ALB	HALL (DECK2)		Q929	KSC2785YGTA	TRANSISTOR	
		TRANSISTOR(S)		Q930	DTA114ESTP	TRANSISTOR	
				Q931	DTC114ESTP	TRANSISTOR	
				Q932	KSC2785YGTA	TRANSISTOR	
Q3, 4	2SJ164PQRTA	TRANSISTOR		Q933	DTA114ESTP	TRANSISTOR	
Q5-8	KSA1175YGTA	TRANSISTOR		Q934	DTC114ESTP	TRANSISTOR	
Q9-14	KSC2785YGTA	TRANSISTOR				DIODE(S)	
Q15, 16	2SD1450RSTA	TRANSISTOR					
Q101, 102	2SJ164PQRTA	TRANSISTOR					
Q103, 104	KSC2785YGTA	TRANSISTOR		D1, 2	MA167	DIODE	
Q105, 106	2SD1450RSTA	TRANSISTOR		D101, 102	MA167	DIODE	
Q107, 108	KSA1175YGTA	TRANSISTOR		D103, 104	MA165	DIODE	
Q109-112	KSC2785YGTA	TRANSISTOR		D311, 312	MA165	DIODE	
Q113, 114	2SK381BCDTA	TRANSISTOR		D313	MTZJ8R2CTA	DIODE	
Q301, 302	2SC3311A-Q	TRANSISTOR		D351, 352	MA165	DIODE	
Q303	KSB564ACYGTA	TRANSISTOR		D363	MTZJ8R2CTA	DIODE	
Q304	KSD471ACYGTA	TRANSISTOR		D551-554	MA165	DIODE	
Q351, 352	2SC3311A-Q	TRANSISTOR		D555	MTZJ5R6BTA	DIODE	
Q353	KSB564ACYGTA	TRANSISTOR		D557, 558	MA165	DIODE	
Q354	KSD471ACYGTA	TRANSISTOR		D601-606	1SR35200TB	DIODE	Δ
Q551	KSA1175YGTA	TRANSISTOR		D607, 608	MTZJ8R2CTA	DIODE	
Q604	2SD2037EFTA	TRANSISTOR		D609	MA4240H	DIODE	
Q605	2SB1357EFTA	TRANSISTOR		D610	MA4062	DIODE	
Q606	2SD2037EFTA	TRANSISTOR		D611	1SR35200TB	DIODE	Δ
Q607	KSB564ACYGTA	TRANSISTOR		D808-811	MA165	DIODE	
Q608	2SB1357EFTA	TRANSISTOR		D813	MA165	DIODE	
Q813	DTA114ESTP	TRANSISTOR		D816	MA165	DIODE	
Q815	2SB1030QTA	TRANSISTOR		D902-907	MA165	DIODE	
Q816	KSC2785YGTA	TRANSISTOR		D908	1SR35200TB	DIODE	
Q902, 903	DTA114ESTP	TRANSISTOR		D909	MA165	DIODE	
Q904	2SB1030QTA	TRANSISTOR		D910	MA700TA	DIODE	
Q905	KSC2785YGTA	TRANSISTOR		D911, 912	MA165	DIODE	Δ

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
D917	MA700TA	DIODE					
D919	MA165	DIODE		S701	EVQ21405R	STOP (DECK1)	
D971	RVD1SS133TA	DIODE (DECK1)		S702	EVQ21405R	F. F. (DECK1)	
D971A	RVD1SS133TA	DIODE (DECK2)		S703	EVQ21405R	REW. (DECK1)	
				S704	EVQ21405R	F. PLAYBACK (DECK1)	
		VARIABLE RESISTOR(S)		S705	EVQ21405R	R. PLAYBACK (DECK1)	
				S706	EVQ21405R	REC (DECK1)	
VR1	EVJ02FF01B15	REC LEVEL CONTROL		S707	EVQ21405R	PAUSE (DECK1)	
VR3-6	EVNDXAA00B24	PLAYBACK GAIN ADJ.		S708	EVQ21405R	REVERSE MODE	
VR7, 8	EVNDXAA00B14	OVERALL GAIN ADJ. (DECK2)		S709	EVQ21405R	DOLBY NR	
VR101, 102	EVNDXAA00B14	OVERALL GAIN ADJ. (DECK1)		S710	EVQ21405R	METER RANGE	
VR301	EVNDXAA00B14	ERASE CURRENT ADJ. (DECK2)		S711	EVQ21405R	STOP (DECK2)	
VR302, 303	EVNDXAA00B14	OVERALL FREQ. ADJ. (DECK2)		S712	EVQ21405R	F. F. (DECK2)	
VR351	EVNDXAA00B14	ERASE CURRENT ADJ. (DECK1)		S713	EVQ21405R	REW. (DECK2)	
VR352, 353	EVNDXAA00B14	OVERALL FREQ. ADJ. (DECK1)		S714	EVQ21405R	F. PLAYBACK (DECK2)	
VR901-903	EVNDXAA00B53	TAPE SPEED ADJ.		S715	EVQ21405R	R. PLAYBACK (DECK2)	
				S716	EVQ21405R	REC (DECK2)	
		COMPONENT COMBINATION(S)		S717	EVQ21405R	PAUSE (DECK2)	
				S718	EVQ21405R	SYNCHRO START	
Z901	EXBF7E562JVY	COMBINATION PART (5. 6kx6)		S719	EVQ21405R	TAPE EDIT SPEED (X1/X2)	
				S720	EVQ21405R	COUNTER RESET2 (DECK2)	
		COIL (S)		S721	EVQ21405R	COUNTER RESET1 (DECK1)	
				S722	EVQ21405R	AUTO REC MUTE (DECK2)	
L1, 2	SLQX303-1KT	COIL		S723	EVQ21405R	AUTO REC MUTE (DECK1)	
L3, 4	SLQX272-1YT	COIL		S724	EVQ21405R	POWER	
L5, 6	RLQB103JT-Y	COIL		S971	RSH1A89ZB-U	MODE (DECK1)	
L101, 102	SLQX303-1KT	COIL		S972	RSH1A90YB-U	HALF (DECK1)	
L103, 104	SLQX272-1YT	COIL		S973	RSH1A90YB-U	R. REC INH. (DECK1)	
L301	SL09M-K	COIL		S974	RSH1A90YB-U	F. REC INH. (DECK1)	
L302, 303	SL09M-Z	COIL		S975	RSH1A90YB-U	ATS (DECK1)	
L351	SL09M-K	COIL		S976	RSH1A90YB-U	ATS (DECK1)	
L352, 353	SL09M-Z	COIL		S971A	RSH1A89ZB-U	MODE (DECK2)	
L401, 402	QLM9210K	COIL		S972A	RSH1A90YB-U	HALF (DECK2)	
				S973A	RSH1A90YB-U	R. REC INH. (DECK2)	
		TRANSFORMER (S)		S974A	RSH1A90YB-U	F. REC INH. (DECK2)	
				S975A	RSH1A90YB-U	ATS (DECK2)	
PT1	RTP1M8013	POWER TRANSFORMER	△	S976A	RSH1A90YB-U	ATS (DECK2)	
		OSCILLATOR(S)				CONNECTOR(S) AND SOCKET(S)	
X551	EFOG4004A4	CERAMIC FILTER (4MHz)		CN3	SJSD1005	CONNECTOR (10P)	
X901	EFOG4004A4	CERAMIC FILTER (4MHz)		CN4	RJS1A1704	CONNECTOR (4P)	
				CN5	SJSD1005	CONNECTOR (10P)	
		DISPLAY TUBE		CN6	RJS1A1704	CONNECTOR (4P)	
				CN8	SJSD1005	CONNECTOR (10P)	
FL551	RSLO27-1F	DISPLAY TUBE		CN11, 12	RJU003K010M1	SOCKET (10P)	
				CN15, 16	RJU060G05T	SOCKET (5P)	
		FUSE (S)		CN600A	RJS1A1703	CONNECTOR (3P)	
				CN600B	RJS1A1703	CONNECTOR (3P)	
F1	XBA225TB0	FUSE 250V T2. 5A	△	CN701	SJT30643-V	CONNECTOR (6P)	
				CP1, 2	RJP5G18ZA	CONNECTOR (5P)	
		SWITCH(ES)		CP11, 12	RJT003K010M1	CONNECTOR (10P)	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
CP15, 16	RJT060R05	CONNECTOR (5P)					
CP17, 18	SJTD313	CONNECTOR (3P)				FUSE HOLDER (S)	
		JACK (S)		FC701, 702	EYF52BC	FUSE HOLDER	
						FLAT CABLE (S)	
JK1	SJF3069-2N	TERMINAL BOARD					
JK3-5	RJJ33T01	M3 JACK					
JK701	SJS9236	AC INLET	△	W3	RWJ0210200QQ	FLAT CABLE (10P)	
JK702	RJS1A4802-B	AC OUTLET	(EB) △	W4	RWJ1804200QQ	FLAT CABLE (4P)	
JK702	RJS1A4902-B	AC OUTLET	(E, EG) △	W5	RWJ0210200QQ	FLAT CABLE (10P)	
				W6	RWJ1804200QQ	FLAT CABLE (4P)	
		GND PART(S)		W8	RWJ0210200KQ	FLAT CABLE (10P)	
				W600	RWJ1806120QQ	FLAT CABLE (6P)	
E1	SNE1004-1	GND PLATE					

RESISTORS & CAPACITORS

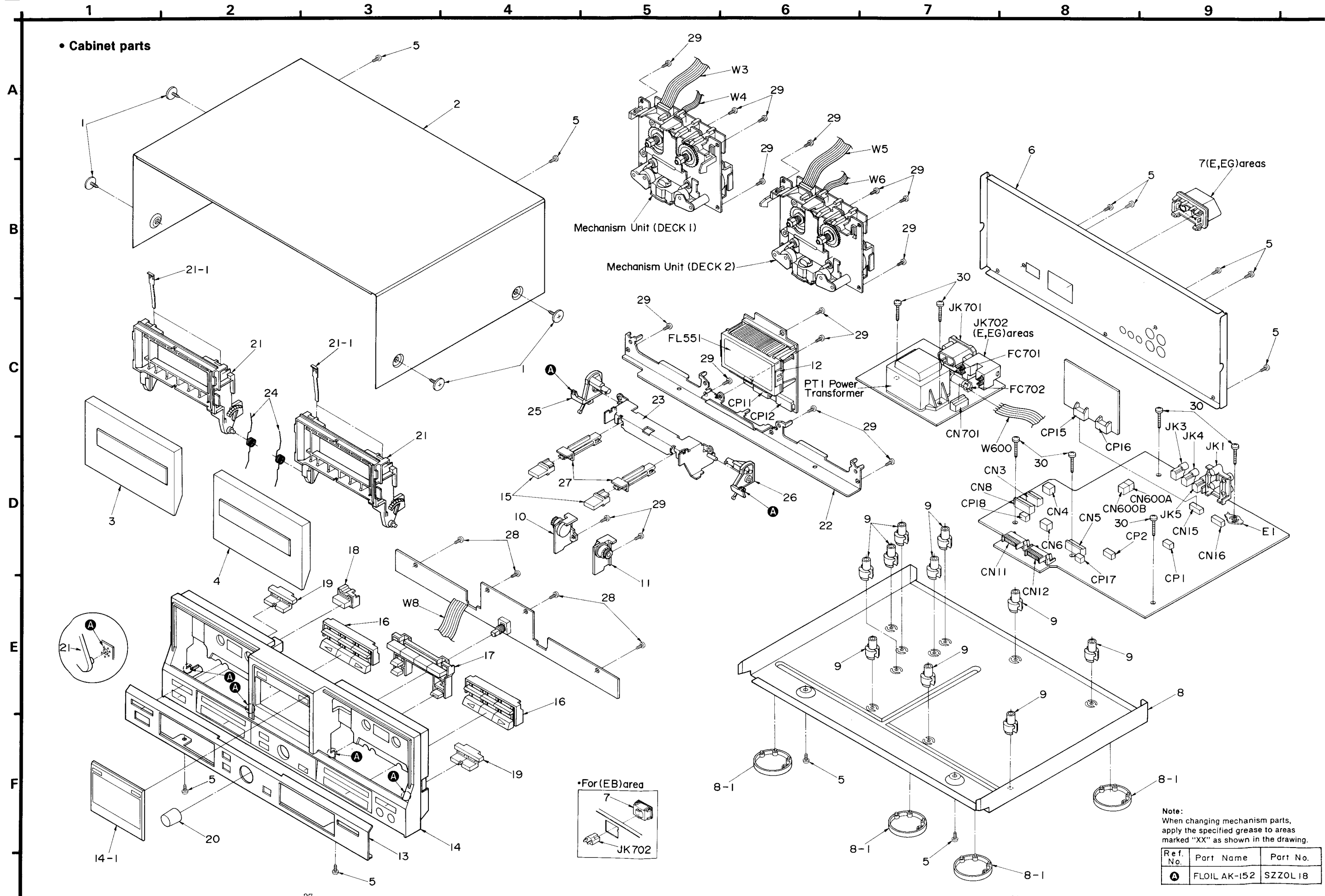
Notes : * Capacity value are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
			R61, 62	ERDS2TJ152	1/4W 1. 5K	R304, 305	ERDS2TJ100	1/4W 10
		RESISTORS	R65	ERDS2TJ392T	1/4W 3. 9K	R306	ERDS2TJ471	1/4W 470
			R67	ERDS2TJ103	1/4W 10K	R307	ERDS2TJ102	1/4W 1K
R1, 2	ERDS2TJ394	1/4W 390K	R85	ERDS2TJ101	1/4W 100	R311, 312	ERDS2TJ101	1/4W 100
R3, 4	ERDS2TJ393	1/4W 39K	R91	ERDS2TJ124T	1/4W 120K	R313, 314	ERDS2TJ154	1/4W 150K
R5, 6	ERDS2TJ183T	1/4W 18K	R93	ERDS2TJ273	1/4W 27K	R315, 316	ERDS2TJ153	1/4W 15K
R9, 10	ERDS2TJ332	1/4W 3. 3K	R94	ERDS2TJ123	1/4W 12K	R319	ERDS2TJ102	1/4W 1K
R11, 12	ERDS2TJ561	1/4W 560	R101, 102	ERDS2TJ225	1/4W 2. 2M	R321	ERDS2TJ102	1/4W 1K
R13, 14	ERDS2TJ332	1/4W 3. 3K	R103-108	ERDS2TJ103	1/4W 10K	R329	ERDS2TJ102	1/4W 1K
R19, 20	ERDS2TJ101	1/4W 100	R109, 110	ERDS2TJ332	1/4W 3. 3K	R351	ERDS2TJ1R0	1/4W 1. 0
R21, 22	ERDS2TJ104	1/4W 100K	R111, 112	ERDS2TJ103	1/4W 10K	R352, 353	ERDS2TJ183T	1/4W 18K
R23, 24	ERDS2TJ101	1/4W 100	R113, 114	ERDS2TJ223	1/4W 22K	R354, 355	ERDS2TJ100	1/4W 10
R25, 26	ERDS2TJ225	1/4W 2. 2M	R115, 116	ERDS2TJ472	1/4W 4. 7K	R356	ERDS2TJ471	1/4W 470
R27, 28	ERDS2EJ121	1/4W 120	R117, 118	ERDS2TJ330	1/4W 33	R357	ERDS2TJ102	1/4W 1K
R29, 30	ERDS2TJ103	1/4W 10K	R121, 122	ERDS2TJ122	1/4W 1. 2K	R361, 362	ERDS2TJ101	1/4W 100
R31, 32	ERDS2TJ273	1/4W 27K	R123, 124	ERDS2TJ562	1/4W 5. 6K	R363, 364	ERDS2TJ154	1/4W 150K
R33, 34	ERDS2TJ183T	1/4W 18K	R125, 126	ERDS2TJ272T	1/4W 2. 7K	R365, 366	ERDS2TJ153	1/4W 15K
R35, 36	ERDS2TJ474	1/4W 470K	R127, 128	ERDS2TJ223	1/4W 22K	R369	ERDS2TJ102	1/4W 1K
R37, 38	ERDS2TJ272T	1/4W 2. 7K	R129, 130	ERDS2TJ183T	1/4W 18K	R371	ERDS2TJ102	1/4W 1K
R43, 44	ERDS2TJ103	1/4W 10K	R131, 132	ERDS2TJ104	1/4W 100K	R379	ERDS2TJ102	1/4W 1K
R45, 46	ERDS2TJ223	1/4W 22K	R133, 134	ERDS2TJ562	1/4W 5. 6K	R405, 406	ERDS2TJ242	1/4W 2. 4K
R47, 48	ERDS2TJ472	1/4W 4. 7K	R135, 136	ERDS2TJ682T	1/4W 6. 8K	R407, 408	ERDS2TJ562	1/4W 5. 6K
R49, 50	ERDS2TJ122	1/4W 1. 2K	R137, 138	ERDS2TJ123	1/4W 12K	R409, 410	ERDS2TJ243T	1/4W 24K
R51, 52	ERDS2TJ330	1/4W 33	R139, 140	ERDS2TJ152	1/4W 1. 5K	R411, 412	ERDS2TJ561	1/4W 560
R53, 54	ERDS2TJ562	1/4W 5. 6K	R141, 142	ERDS2TJ103	1/4W 10K	R417	ERDS2TJ151	1/4W 150
R55, 56	ERDS2TJ272T	1/4W 2. 7K	R144, 145	ERDS2TJ103	1/4W 10K	R418	ERDS2TJ273	1/4W 27K
R57, 58	ERDS2TJ103	1/4W 10K	R301	ERDS2TJ1R0	1/4W 1. 0	R522	ERDS2TJ333	1/4W 33K
R59, 60	ERDS2TJ332	1/4W 3. 3K	R302, 303	ERDS2TJ183T	1/4W 18K	R551-556	ERDS2TJ473	1/4W 47K

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R557, 558	ERDS2TJ220T	1/4W 22	R839	ERDS2TJ222	1/4W 2.2K	R960	ERDS2TJ153	1/4W 15K
R559, 560	ERDS2TJ152	1/4W 1.5K	R840	ERDS2TJ102	1/4W 1K	R961	ERDS2TJ221	1/4W 220
R561	ERDS2TJ102	1/4W 1K	R841	ERDS2TJ473	1/4W 47K	R962	ERDS2TJ103	1/4W 10K
R562	ERDS2TJ471	1/4W 470	R842	ERDS2TJ183T	1/4W 18K	R963	ERDS2TJ392T	1/4W 3.9K
R563, 564	ERDS2TJ103	1/4W 10K	R843	ERDS2TJ393	1/4W 39K	R964	ERDS2TJ184T	1/4W 180K
R565	ERDS2TJ105T	1/4W 1M	R844	ERDS2TJ472	1/4W 4.7K	R965	ERDS2TJ103	1/4W 10K
R566, 567	ERDS2TJ103	1/4W 10K	R845	ERDS2TJ823T	1/4W 82K	R966	ERDS2TJ223	1/4W 22K
R569	ERDS2TJ105T	1/4W 1M	R846	ERDS2TJ101	1/4W 100	R967	ERDS2TJ821	1/4W 820
R605	ERD2FCVJ5R6T	1/4W 5.6 Δ	R847	ERDS2TJ122	1/4W 1.2K	R968, 969	ERDS2TJ472	1/4W 4.7K
R606	ERD2FCVJ4R7T	1/4W 4.7 Δ	R852, 853	ERD2FCVG470T	1/4W 47 Δ	R973	ERDS2TJ472	1/4W 4.7K
R607, 608	ERDS2TJ102	1/4W 1K	R902	ERDS2TJ822	1/4W 8.2K	R975, 976	ERDS2TJ331	1/4W 330
R609, 610	ERDS2TJ185T	1/4W 1.5	R903	ERDS2TJ393	1/4W 39K	R977, 978	ERDS2TJ103	1/4W 10K
R611	ERD2FCVG100T	1/4W 10 Δ	R904, 905	ERDS2TJ222	1/4W 2.2K	R979	ERDS2TJ153	1/4W 15K
R612	ERD2FCVG270T	1/4W 27 Δ	R906	ERDS2TJ103	1/4W 10K	R980-985	ERDS2TJ393	1/4W 39K
R613	ERDS2TJ102	1/4W 1K	R907	ERDS2TJ563	1/4W 56K	R986	ERDS2TJ103	1/4W 10K
R614	ERDS2TJ222	1/4W 2.2K	R908-910	ERDS2TJ103	1/4W 10K	R987	ERDS2TJ472	1/4W 4.7K
R615, 616	ERDS2TJ270T	1/4W 27	R911	ERDS2TJ392T	1/4W 3.9K	R990	ERDS2TJ100	1/4W 10
R617, 618	ERQ16NWR15E	1W 0.15	R912	ERDS2TJ222	1/4W 2.2K	R993	ERDS2TJ103	1/4W 10K
R619-621	ERDS2TJ560T	1/4W 56	R913	ERDS2TJ272T	1/4W 2.7K	R994	ERDS2TJ102	1/4W 1K
R622	ERQ16NWR15E	1W 0.15	R914	ERDS2TJ152	1/4W 1.5K	R995, 996	ERDS2TJ100	1/4W 10
R623	ERDS2TJ560T	1/4W 56	R915	ERDS2TJ473	1/4W 47K	R997	ERDS2TJ562	1/4W 5.6K
R624, 625	ERDS2TJ270T	1/4W 27	R916	ERDS2TJ272T	1/4W 2.7K	R998	ERDS2TJ100	1/4W 10
R632	ERD2FCVJ5R6T	1/4W 5.6 Δ	R917, 918	ERDS2TJ103	1/4W 10K			
R701	ERDS2TJ821	1/4W 820	R919	ERDS2TJ471	1/4W 470			CAPACITORS
R702	ERDS2TJ102	1/4W 1K	R920-922	ERDS2TJ103	1/4W 10K			
R703	ERDS2TJ122	1/4W 1.2K	R923	ERDS2TJ100	1/4W 10	C1-3	ECEA1HKA010B	50V 1U
R704	ERDS2TJ152	1/4W 1.5K	R924	ERDS2TJ103	1/4W 10K	C5, 6	ECEA1CKA220B	16V 22U
R705	ERDS2TJ182	1/4W 1.8K	R925	ERDS2TJ223	1/4W 22K	C7-10	ECBT1H561KB5	50V 560P
R706	ERDS2TJ222	1/4W 2.2K	R926	ERDS2TJ100	1/4W 10	C11, 12	ECBT1H102KB5	50V 1000P
R707	ERDS2TJ332	1/4W 3.3K	R927	ERDS2TJ223	1/4W 22K	C13, 14	ECEA0JKA101B	6.3V 100U
R708	ERDS2TJ472	1/4W 4.7K	R928	ERDS2TJ273	1/4W 27K	C15, 16	ECQB1H682JZ3	50V 6800P
R709	ERDS2TJ682T	1/4W 6.8K	R931	ERDS2TJ102	1/4W 1K	C17-20	ECEA1EKA4R7B	25V 4.7U
R710	ERDS2TJ123	1/4W 12K	R932	ERDS2TJ392T	1/4W 3.9K	C21	ECEA0JKA101B	6.3V 100U
R713	ERDS2TJ821	1/4W 820	R933	ERDS2TJ472	1/4W 4.7K	C25, 26	ECEA1EKA4R7B	25V 4.7U
R714	ERDS2TJ102	1/4W 1K	R934	ERDS2TJ105T	1/4W 1M	C27, 28	ECBT1H561KB5	50V 560P
R715	ERDS2TJ122	1/4W 1.2K	R935	ERDS2TJ182	1/4W 1.8K	C29, 30	ECKR2H101KB5	500V 100P
R716	ERDS2TJ152	1/4W 1.5K	R938, 939	ERDS2TJ472	1/4W 4.7K	C31, 32	ECBT1H181KB5	50V 180P
R717	ERDS2TJ182	1/4W 1.8K	R941	ERDS2TJ102	1/4W 1K	C33, 34	ECEA1HKA4R7B	50V 0.47U
R718	ERDS2TJ222	1/4W 2.2K	R943	ERDS2TJ103	1/4W 10K	C35, 36	ECQB1H472JZ	50V 4700P
R719	ERDS2TJ332	1/4W 3.3K	R945	ERDS2TJ822	1/4W 8.2K	C37, 38	ECQB1H223JZ3	50V 0.022U
R720	ERDS2TJ472	1/4W 4.7K	R948	ERDS2TJ184T	1/4W 180K	C39, 40	ECQB1H103JZ	50V 0.01U
R721	ERDS2TJ682T	1/4W 6.8K	R949	ERDS2TJ103	1/4W 10K	C41, 42	ECQB1H223JZ3	50V 0.022U
R722	ERDS2TJ123	1/4W 12K	R950	ERDS2TJ332	1/4W 3.3K	C43, 44	ECQB1H153JZ	50V 0.015U
R825, 826	ERDS2TJ103	1/4W 10K	R951	ERDS2TJ103	1/4W 10K	C45, 46	ECBT1E103ZF	25V 0.01U
R827	ERDS2TJ563	1/4W 56K	R952	ERDS2TJ392T	1/4W 3.9K	C49, 50	ECEA1CKA100B	16V 10U
R828	ERDS2TJ222	1/4W 2.2K	R953	ERDS2TJ103	1/4W 10K	C53, 54	ECQV1H563JZ3	50V 0.056U
R829	ERDS2TJ392T	1/4W 3.9K	R954	ERDS2TJ223	1/4W 22K	C55	ECBT1E103ZF	25V 0.01U
R830	ERDS2TJ103	1/4W 10K	R955	ERDS2TJ821	1/4W 820	C57, 58	ECEA1AKA470B	10V 47U
R831	ERDS2TJ272T	1/4W 2.7K	R956	ERDS2TJ223	1/4W 22K	C63	ECEA1CKA100B	16V 10U
R832	ERDS2TJ152	1/4W 1.5K	R957	ERDS2TJ821	1/4W 820	C64	ECEA1HN010	50V 1U
R837	ERDS2TJ473	1/4W 47K	R958	ERDS2TJ223	1/4W 22K	C71, 72	ECBT1H391KB5	50V 390P
R838	ERDS2TJ272T	1/4W 2.7K	R959	ERDS2TJ821	1/4W 820	C73, 74	ECBT1C472KR5	16V 4700P

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks			
C81-84	ECBT1H4R7KC5	50V 4.7P	C405-408	ECQB1H222JZ3	50V 2200P			
C101, 102	ECBT1H102KB5	50V 1000P	C409, 410	ECEA1HUR56B	50V 0.56U			
C103, 104	ECKR2H101KB5	500V 100P	C411, 412	ECEA1HKA33B	50V 0.33U			
C105, 106	ECBT1H561KB5	50V 560P	C413-416	ECEA1EKA4R7B	25V 4.7U			
C107, 108	ECEA1HKA4R7B	50V 0.47U	C551, 552	ECEA1CKA100B	16V 10U			
C109, 110	ECBT1H181KB5	50V 180P	C553, 554	ECEA0JKA101B	6.3V 100U			
C111, 112	ECQB1H273JZ	50V 0.027U	C555	ECKR1H103ZF5	50V 0.01U			
C113, 114	ECQB1H103JZ	50V 0.01U	C556	ECEA0JKA101B	6.3V 100U			
C115, 116	ECQV1H563JZ3	50V 0.056U	C557	ECEA1EKA4R7B	25V 4.7U			
C117, 118	ECQB1H153JZ	50V 0.015U	C558	ECEA1HKA010B	50V 1U			
C119, 120	ECEA1EKA4R7B	25V 4.7U	C559-562	ECKR1H103ZF5	50V 0.01U			
C121	ECBT1E103ZF	25V 0.01U	C601	ECKR2H682PE	500V 6800P			
C131, 132	ECQB1H822JZ	50V 8200P	C602, 603	ECA1EM102B	25V 1000U			
C133, 134	ECQB1H153JZ	50V 0.015U	C604, 605	ECKR1H103ZF5	50V 0.01U			
C135, 136	ECQB1H822JZ	50V 8200P	C606, 607	ECEA1AKA221Q	10V 220U			
C137, 138	ECQB1H153JZ	50V 0.015U	C608, 609	ECKR1H103ZF5	50V 0.01U			
C301	ECQP1153JZ	100V 0.015U	C610, 611	ECEA1AU102B	10V 1000U			
C302	ECEA1EKA4R7B	25V 4.7U	C612	ECEA1EU222B	25V 2200U			
C303	ECKR1H392KB5	50V 3900P	C613	ECA1HM470B	50V 47U			
C304, 305	ECKW1H222KB5	50V 2200P	C615	ECKR1H103ZF5	50V 0.01U			
C306	ECKD1H682KB	50V 6800P	C801	ECEA1HKA2R2B	50V 2.2U			
C309	ECKR1H103ZF5	50V 0.01U	C802	ECCR1H470K5	50V 47P			
C310	ECKR1H472KB5	50V 4700P	C803	ECEA1CKA100B	16V 10U			
C311	ECA1AM471B	10V 470U	C804	ECQB1H822JZ	50V 8200P			
C313, 314	ECKT1H223ZF	50V 0.022U	C901	ECA0JM222B	6.3V 2200U			
C315, 316	ECKR2H821KB5	500V 820P	C903	ECEA1HKA010B	50V 1U			
C317, 318	ECBT1H121KB5	50V 120P	C904	ECEA1EKA4R7B	25V 4.7U			
C319, 320	ECQV1H473JZ3	50V 0.047U	C907	ECKR1H103ZF5	50V 0.01U			
C321, 322	ECQB1H223JZ3	50V 0.022U	C912	ECKT1H122KB	50V 1200P			
C323, 324	ECQB1H103JZ	50V 0.01U	C915	ECBT1E103ZF	25V 0.01U			
C325, 326	ECKT1H122KB	50V 1200P	C916	ECEA1CKA100B	16V 10U			
C328	ECCR2H100K5	500V 10P						
C331	ECKR1H103ZF5	50V 0.01U						
C332	ECEA1CKA100B	16V 10U						
C351	ECQP1153JZ	100V 0.015U						
C352	ECEA1EKA4R7B	25V 4.7U						
C353	ECKR1H392KB5	50V 3900P						
C354, 355	ECKW1H222KB5	50V 2200P						
C356	ECKD1H682KB	50V 6800P						
C359	ECBT1E103ZF	25V 0.01U						
C360	ECKR1H472KB5	50V 4700P						
C361	ECA1AM471B	10V 470U						
C363, 364	ECKT1H223ZF	50V 0.022U						
C365, 366	ECKR2H821KB5	500V 820P						
C367, 368	ECBT1H121KB5	50V 120P						
C369, 370	ECQV1H473JZ3	50V 0.047U						
C371, 372	ECQB1H223JZ3	50V 0.022U						
C373, 374	ECQB1H103JZ	50V 0.01U						
C375, 376	ECKT1H122KB	50V 1200P						
C378	ECCR2H100K5	500V 10P						
C381	ECKR1H103ZF5	50V 0.01U						
C382	ECEA1CKA100B	16V 10U						

■ EXPLODED VIEW



Note:
When changing mechanism parts,
apply the specified grease to areas
marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
(A)	FLOIL AK-152	SZZOL18

REPLACEMENT PARTS LIST

Notes : * Important safety notice:

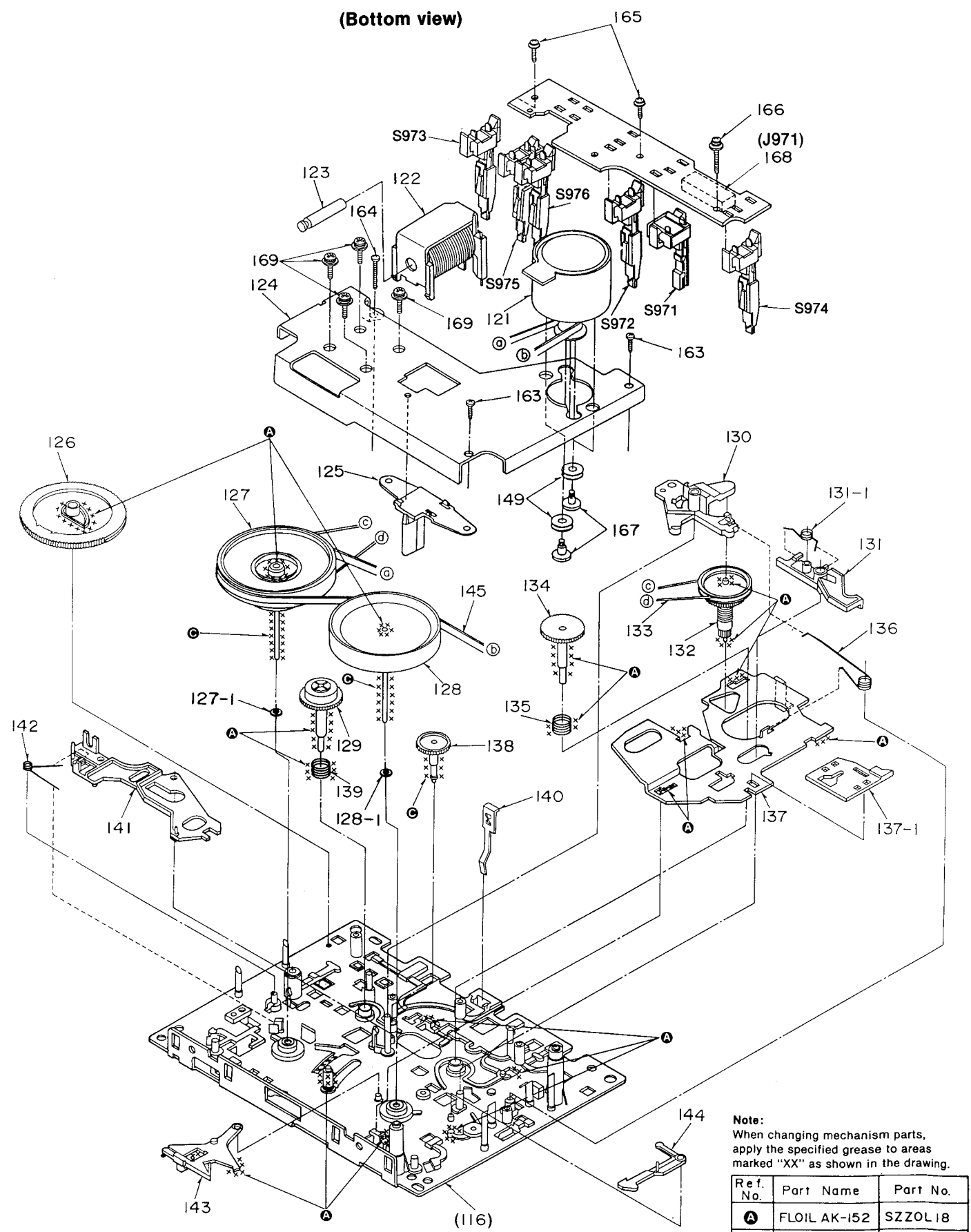
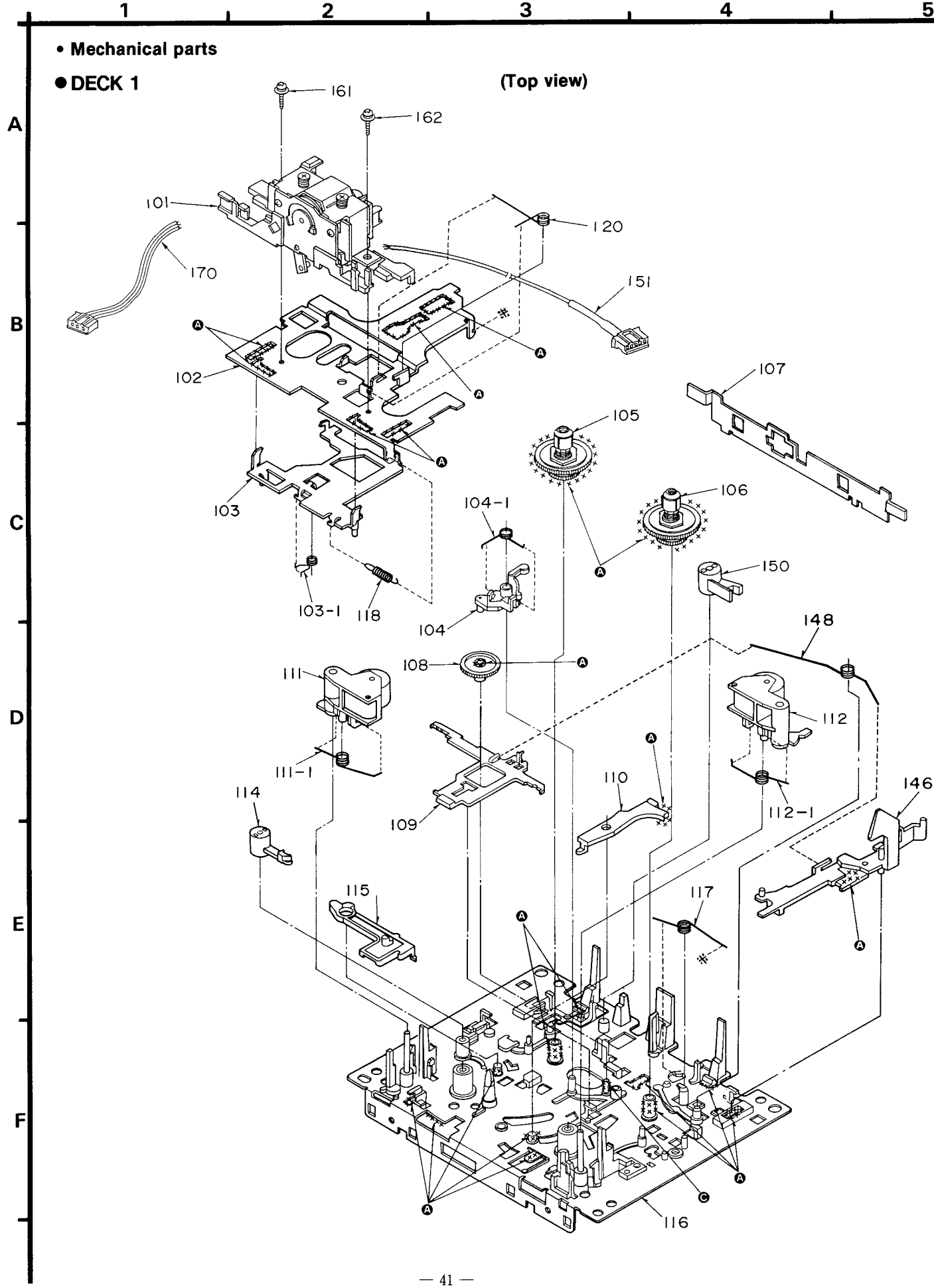
Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.) Parts without these indications can be used for all areas.

Ref.No.	Part No.	Part Name & Description	Remarks	Ref.No.	Part No.	Part Name & Description	Remarks
						ACCESSORIES	
		CABINET AND CHASSIS					
1	RHD30007	SCREW		A1	RQF1078	INSTRUCTION MANUAL UNIT	(E)
2	RKM0024-2K	CABINET		A1	RQF1079	INSTRUCTION MANUAL UNIT	(EB)
3	RYF0136-K	CASSETTE LID(DECK1)		A1	RQF1080	INSTRUCTION MANUAL UNIT	(EG)
4	RYF0137-K	CASSETTE LID(DECK2)		A1-1	RFKSSX902E-K	INSTRUCTION MANUAL ASS'Y	(E)
5	XTBS3+8JFZ1	SCREW		A1-1	RQT0984-B	INSTRUCTION MANUAL	(EB)
6	RGR0102B-B	REAR PANEL	(EB)	A1-1	RQT0985-D	INSTRUCTION MANUAL	(EG)
6	RGR0102C-B	REAR PANEL	(EG)	A1-2	RQA0013	WARRANTY CARD	
6	RGR0102C-D	REAR PANEL	(E)	A1-3	RQCB0169	SERVICENTER LIST	
7	RJSLA4802-A	AC OUTLET COVER	(EB)	A2	SJA187	AC POWER SUPPLY CORD	(E, EG) Δ
7	RJSLA4902-A	AC OUTLET COVER	(E, EG)	A2	SJA188	AC POWER SUPPLY CORD	(EB) Δ
8	RFKJSX502E-K	BOTTOM BOARD ASS'Y		A3	SJP2249-3	STEREO CONNECTION CABLE	
8-1	RKA0011-2	FOOT		A4	SJP2257T	L-TYPE CABLE	
9	RKQ0089	P. C. B. HOLDER					
10	RFKNSDN7AK	DAMPER GEAR ASS'Y(L)					
11	RFKNSDN7BK	DAMPER GEAR ASS'Y(R)					
12	RMN0049	FL HOLDER					
13	RGGO066-K	FRONT AL. PANEL					
14	RFKGSX502E-K	FRONT PANEL ASS'Y					
14-1	RKWO124A-K1	TRANSPARENT PLATE					
15	RGU0461-K	BUTTON, EJECT					
16	RGU0601-K	BUTTON, OPERATION					
17	RGU0603-K	BUTTON, COUNTER/SYNCHRO					
18	RGU0604-K	BUTTON, POWER					
19	RGU0605-K	BUTTON, REC					
20	RGWO098-K	KNOB, REC LEVEL					
21	RKF0169A-K	CASSETTE HOLDER					
21-1	QBP2006A	TAPE PRESSURE SPRING					
22	RMAD159-1	MECHANISM ANGLE					
23	RMAD373	EJECT ANGLE					
24	RME0068-1	SPRING					
25	RML0185-1	EJECT LEVER(L)					
26	RML0186-1	EJECT LEVER(R)					
27	RMM0041	EJECT ROD					
28	XTBS26+10J	SCREW					
29	XTB3+10JFZ	SCREW					
30	XTB3+20JFZ	SCREW					
		PACKING MATERIAL					
P1	RPG0845	CARTON BOX					
P2	RPN0383-1	PAD					
P3	SPSD152	ACCESSORIES BOX					
P4	SPP756	PROTECTION COVER					

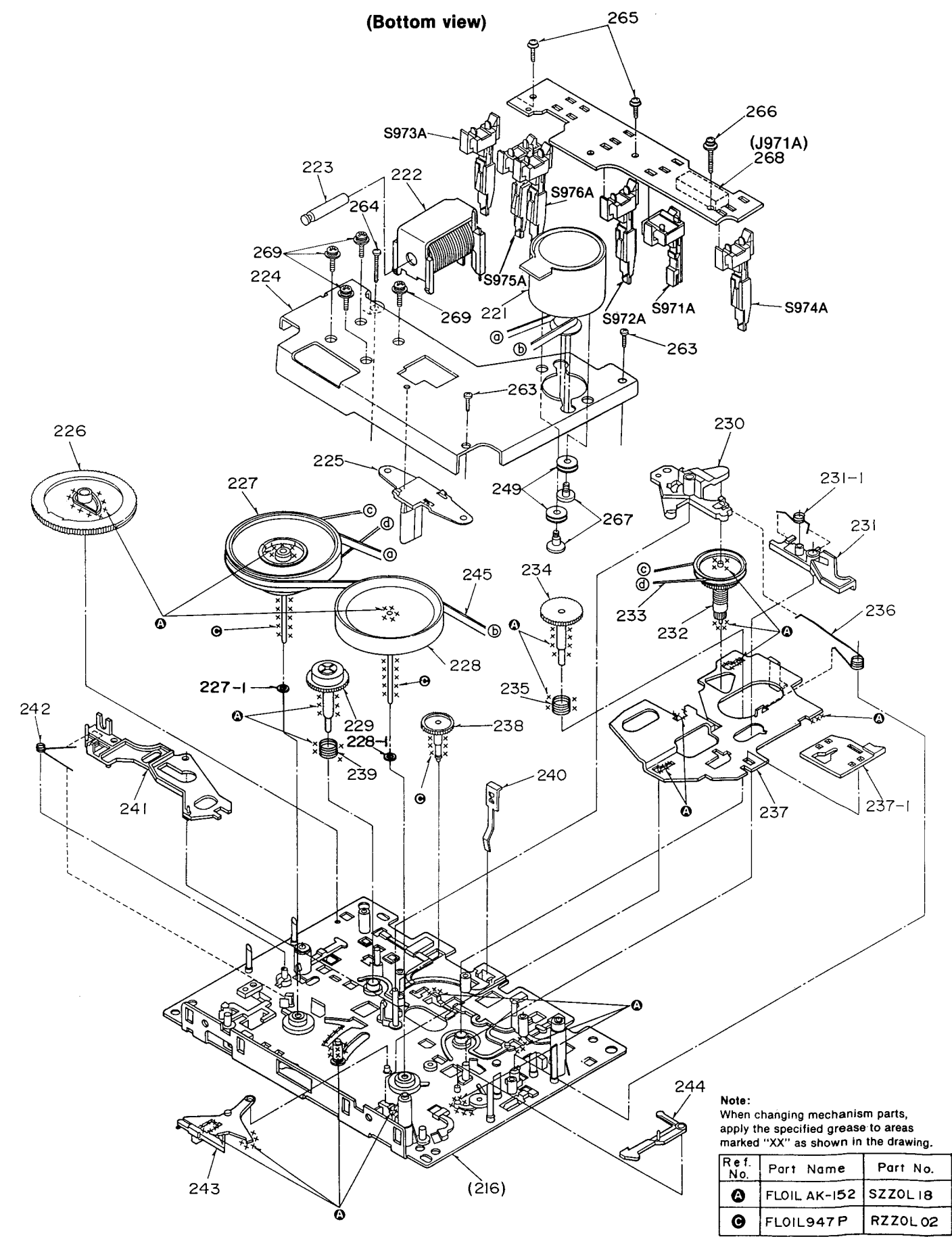
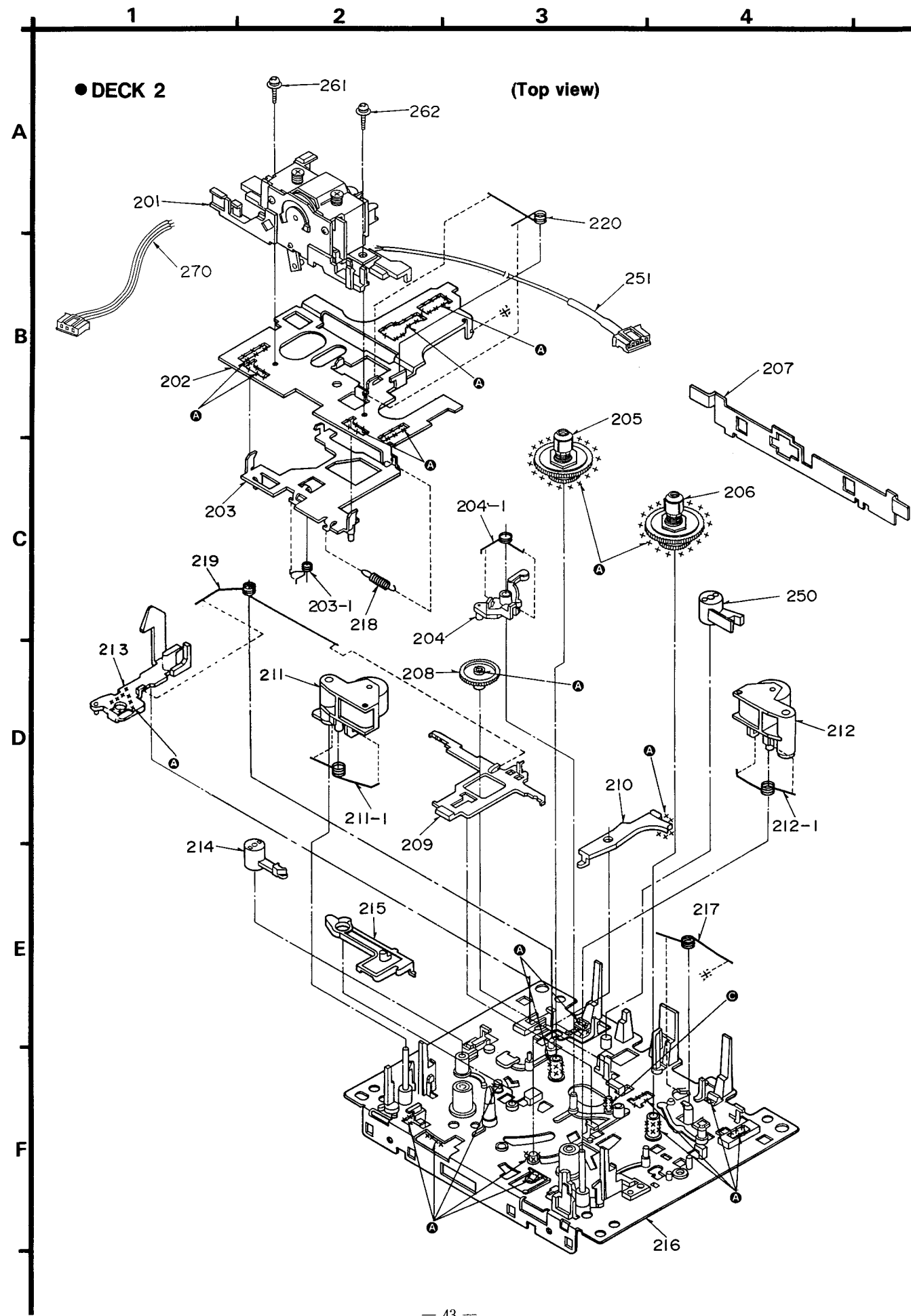
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS LIST		143	RUB515ZA	LEVER	
				144	RUB509ZA	LEVER	
DECK1				145	RDV0015	CAPSTAN BELT	
101	RXQ0008	HEAD BLOCK (REC./PLAYBACK)		146	RUB507ZD	EJECT ROD (R)	
102	RUA793ZF	HEAD BASE		148	RJW144ZA	SPRING	
103	RZLAR300	ROD		149	RHG3032ZA	RUBBER CUSHION	
103-1	RJW143ZA	SPRING		150	RNL180ZB	DAMPER ARM	
104	1UB0089ZA	ARM		151	REX0059	LEAD WIRE BLOCK (5P)	
104-1	RJW148ZA	SPRING		161	XTW2+6L	SCREW	
105	1DM0018ZA	REEL TABLE (R)		162	XTW2+8L	SCREW	
106	1DM0017ZA	REEL TABLE (F)		163	XTN26+7J	SCREW	
107	RML0069-1	LEVER		164	RHE5203ZA	SCREW	
108	RDG57722C	GEAR		165	XTW2+8S	SCREW	
109	RUB508ZB	BRAKE ROD		166	XYC2+JF16	SCREW	
110	RUB506ZB	LEVER		167	RHD26002	SCREW	
111	1UB0088ZA	ARM (R)		168	RJS10T7ZA	CONNECTOR (10P), J971	
111-1	RJW141ZA	SPRING		169	RHD26003	SCREW	
112	1UB0087ZA	ARM (F)		170	REX0145	READ WIRE BLOCK (3P)	
112-1	RJW140ZC	SPRING					
114	RNL1ZD	DAMPER ARM					
115	RUB503ZD	MAIN LEVER					
116	RZUSX980	CHASSIS					
117	RJW142ZA	SPRING					
118	RJD105ZA	SPRING					
120	RJW139ZA	SPRING					
121	RFM133ZA	DC MOTOR					
122	1UE0015ZA	PLUNGER					
123	RUB428ZE	MOVING IRON CORE					
124	RUL1030XB	ANGLE					
125	RMD5014ZC	ANGLE					
126	RDG5927ZG	GEAR					
127	1DW0053ZB	FLYWHEEL (F)					
127-1	RNW139ZA	WASHER					
128	1DW0054ZB	FLYWHEEL (R)					
128-1	RNW138ZA	WASHER					
129	1DG0006ZA	REEL TABLE GEAR					
130	RUB513ZD	ARM					
131	1UB0091ZA	LEVER					
131-1	RJW146ZA	SPRING					
132	1DR0011ZA	MAIN PULLEY					
133	RDV90ZB	BELT					
134	RDG5769ZA	REEL TABLE GEAR					
135	RJQ111ZB	SPRING					
136	RJW145ZA	SPRING					
137	1UB0090ZA	ROD					
137-1	RUB512ZB	F. F. ROD					
138	RDG5773ZB	GEAR					
139	RJQ112ZA	SPRING					
140	RJS609ZC	TAPE PRESSURE SPRING					
141	RUB514ZC	LEVER					
142	RJW147ZA	SPRING					

EXPLODED VIEWS



Note:
When changing mechanism parts,
apply the specified grease to areas
marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
A	FLOIL AK-152	SZZOL18
C	FLOIL947P	RZZOL02



Note:
When changing mechanism parts,
apply the specified grease to areas
marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
A	FL0IL AK-152	SZZ0L 18
C	FL0IL947P	RZZ0L 02

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS LIST		241	RUB514ZC	LEVER	
				242	RUW147ZA	SPRING	
				243	RUB515ZA	LEVER	
DECK2				244	RUB509ZA	LEVER	
201	RXQ0008	HEAD BLOCK(REC./PLAYBACK)		245	RDV0015	CAPSTAN BELT	
202	RUA793ZF	HEAD BASE		249	RHG3032ZA	RUBBER CUSHION	
203	RZLAR300	ROD		250	RNL180ZB	DAMPER ARM	
203-1	RUW143ZA	SPRING		251	REX0059	LEAD WIRE BLOCK(5P)	
204	1UB0089ZA	ARM		261	XTW2+6L	SCREW	
204-1	RUW148ZA	SPRING		262	XTW2+8L	SCREW	
205	1DM0018ZA	REEL TABLE (R)		263	XTN26+7J	SCREW	
206	1DM0017ZA	REEL TABLE (F)		264	RHE5203ZA	SCREW	
207	RML0069-1	LEVER		265	XTW2+8S	SCREW	
208	RDG5772ZC	GEAR		266	XYC2+JF16	SCREW	
209	RUB508ZB	BRAKE ROD		267	RHD26002	SCREW	
210	RUB506ZB	LEVER		268	RJS1077ZA	CONNECTOR(10P), J971A	
211	1UB0088ZA	ARM(R)		269	RHD26003	SCREW	
211-1	RUW141ZA	SPRING		270	REX0145	LEAD WIRE BLOCK(3P)	
212	1UB0087ZA	ARM(F)					
212-1	RUW140ZC	SPRING					
213	RUB541ZB	EJECT ROD (L)					
214	RNL1ZD	DAMPER ARM					
215	RUB503ZD	MAIN LEVER					
216	RZUSX980	CHASSIS					
217	RUW142ZA	SPRING					
218	RUD105ZA	SPRING					
219	RUW167ZA	SPRING					
220	RUW139ZA	SPRING					
221	RFM133ZA	DC MOTOR					
222	1UE0015ZA	PLUNGER					
223	RUB428ZE	MOVING IRON CORE					
224	RJL1030XB	ANGLE					
225	RMD5014ZC	ANGLE					
226	RDG5927ZG	GEAR					
227	1DW0053ZB	FLYWHEEL (F)					
227-1	RNW139ZA	WASHER					
228	1DW0054ZB	FLYWHEEL (R)					
228-1	RNW138ZA	WASHER					
229	1DG0006ZA	REEL TABLE GEAR					
230	RUB513ZD	ARM					
231	1UB0091ZA	LEVER					
231-1	RUW146ZA	SPRING					
232	1DR0011ZA	MAIN PULLEY					
233	RDV90ZB	BELT					
234	RDG5769ZA	REEL TABLE GEAR					
235	RUQ1112B	SPRING					
236	RUW145ZA	SPRING					
237	1UB0090ZA	ROD					
237-1	RUB512ZB	F. F. ROD					
238	RDG5773ZB	GEAR					
239	RUQ112ZA	SPRING					
240	RUS609ZC	TAPE PRESSURE SPRING					